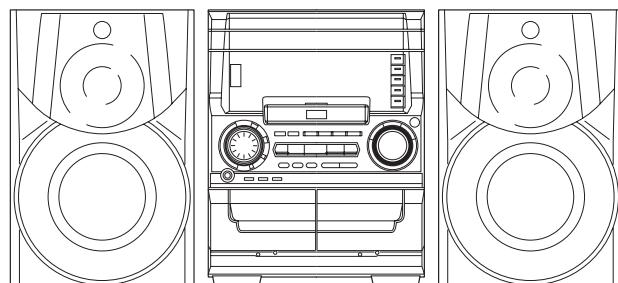




**XR-C3RW**

U(S)



# SERVICE MANUAL

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CD-R/CD STEREO SYSTEM

- BASIC MD MECHANISM : 2ZM-3MK2 YPR4
- BASIC CD MECHANISM : AZG-1 ZD8RD
- BASIC CD-R MECHANISM : PH1621011A

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| SYSTEM  | CD-R/CD/<br>CASSEIVER | SPEAKER |
|---------|-----------------------|---------|
| XR-C3RW | CX-NC3RW              | SX-WNC3 |

This Service Manual is the "Revision Publishing" and replaces "Simple Manual" XR-C3RW U(S)(S/M Code No. 09-99C-338-0T1).

If requiring information about the CD mechanism, see Service Manual of AZG-1, (S/M Code No. 09-001-335-3N6).

**aiwa**  
S/M Code No. 09-99C-338-0R1

REVISION  
DATA

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## SPECIFICATIONS

|                                     |   |   |  |
|-------------------------------------|---|---|--|
| <b>FM tuner section</b>             |   | <b>COMPACT DISC recorder (CD-R/RW) section</b>                    |  |
| <b>Tuning range</b>                 | 87.5 MHz to 108 MHz   | <b>Scanning method</b>  | Non-contact optical scanner<br>(Semiconductor laser application)   |
| <b>Usable sensitivity (IHF)</b>     | 16.8 dBf  | <b>Magnetic polarity modulation</b>                               |  |
| <b>Antenna terminals</b>            | 75 ohms (unbalanced)  | <b>overwrite system</b>   |  |
| <b>AM tuner section</b>             |   | <b>Rotation speed</b>   | Approx. 400 - 900 rpm (CLV)  |
| <b>Tuning range</b>                 | 530 kHz to 1710 kHz (10 kHz step)   | <b>Sampling frequency</b>   | 44.1 kHz   |
| <b>Usable sensitivity</b>           | 531 kHz to 1602 kHz (9 kHz step)  | <b>No. of channels</b>  | Stereo: 2 channels<br>Monaural: 1 channel  |
| <b>Antenna</b>                      | 350 $\mu$ V/m<br>Loop antenna   | <b>A-D, D-A converter</b>   | 1-bit  |
| <b>Amplifier section</b>            |   | <b>Frequency</b>  | 20 to 20000 Hz +0.5 - -1.5 dB  |
| <b>Mid-high frequency amplifier</b> |   | <b>Wow and flutter</b>  | Unmeasurable   |
| <b>Power output*</b>                | 10 watts per channel, Min.<br>RMS at 8 ohms, from 200 Hz to<br>20 kHz, with no more than 1% | <b>Cassette deck section</b>                                      |  |
|                                     | Total Harmonic Distortion   | <b>Track format</b>   | 4 tracks, 2 channels stereo  |
| <b>Total harmonic distortion</b>    | 0.06 % (8 W, 1 kHz, 8 ohms, DIN<br>AUDIO)   | <b>Frequency response</b>   | 50 Hz to 15000 Hz  |
| <b>Low frequency amplifier</b>      |   | <b>Recording system</b>   | AC bias  |
| <b>Power output*</b>                | 30 watts per channel, Min.<br>RMS at 4 ohms, from 50 Hz to<br>200 Hz, with no more than 1%  | <b>Heads</b>  | Deck 1: Playback head $\times$ 1<br>Deck 2: Recording/playback head<br>$\times$ 1, erase head $\times$ 1 |
| <b>Total harmonic distortion</b>    | Total Harmonic Distortion<br>0.06 % (20 W, 135 Hz, 4 ohms, DIN<br>AUDIO)                    | <b>General</b>  |  |
| <b>Inputs</b>                       | * without connecting to the SURROUND SPEAKERS   |   |  |
|                                     | VIDEO/AUX: 700 mV   | <b>Power requirements</b>   | 120 V AC, 60 Hz  |
| <b>Outputs</b>                      | DIGITAL IN  | <b>Power consumption</b>  | 150 W  |
|                                     | SPEAKERS:<br>LOW FREQ: accept speakers of 4<br>ohms   | <b>Standby power consumption</b>                                  | 1.3 W (power-economizing mode<br>set to ON)2   |
|                                     | HIGH FREQ: accept speakers of 8<br>ohms   | <b>Dimensions of main unit</b><br>(W $\times$ H $\times$ D)       | 260 $\times$ 329.5 $\times$ 354.5 mm<br>(10 $1/4$ $\times$ 123 $\times$ 14 in.)                          |
|                                     | SURROUND SPEAKERS: accept<br>speakers of 8 to 16 ohms                                       | <b>Weight of main unit</b>  | 10 kg (22 lb 1 oz.)  |
|                                     | PHONES (stereo jack): accepts<br>headphones of 32 ohms or more                              | <b>Speaker system SX-WNC3</b>                                     |  |
|                                     | CD DIGITAL OUT (OPTICAL) jack   | <b>Cabinet type</b>   | 3 way, built-in subwoofer (magnetic<br>shielded type)  |
| <b>Compact disc player section</b>  |   | <b>Speakers</b>   | Subwoofer:<br>160 mm cone type   |
| <b>Laser</b>                        | Semiconductor laser ( $\lambda$ = 780 nm)   |   | Full range:<br>100 mm cone type  |
| <b>D-A converter</b>                | 1 bit dual  |   | Super tweeter:<br>20 mm ceramic type   |
| <b>Signal-to-noise ratio</b>        | 85 dB (1 kHz, 0 dB)   | <b>Impedance</b>  | LOW FREQ: 4 ohms   |
| <b>Harmonic distortion</b>          | 0.05 % (1 kHz, 0 dB)  |   | HIGH FREQ: 8 ohms  |
| <b>Wow and flutter</b>              | Unmeasurable  | <b>Output sound pressure level</b>                                | 87 dB/W/m  |
|                                     |   | <b>Dimensions (W <math>\times</math> H <math>\times</math> D)</b> | 240 $\times$ 324 $\times$ 270 mm   |
|                                     |   | <b>Weight</b>   | 4.8 kg   |

● Design and specifications are subject to change without notice.

## ACCESSORIES/PACKAGE LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。  
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

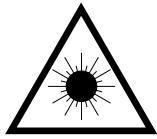
| REF. NO. | PART NO.       | KANRI<br>NO. | DESCRIPTION      |
|----------|----------------|--------------|------------------|
| 1        | 87-A90-030-010 |              | ANT,LOOP AM-NC C |
| 2        | 87-043-115-010 |              | ANT,FEEDER FM    |
| 3        | 8Z-NF8-701-210 |              | RC UNIT,RC-ZAS01 |
| 4        | 8Z-DF8-908-010 |              | IB,D(J)I<D<S>>   |
| 4        | 8Z-DF8-903-010 |              | IB,U(ESF)I<U<S>> |

## PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

### WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

### VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käytäjän turvallisuusluokan 1 ylitäälle näkymättömälle lasersäteilylle.

### VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

### CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### ATTENTION

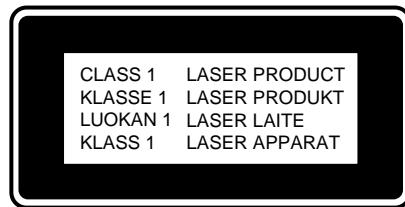
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

### ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

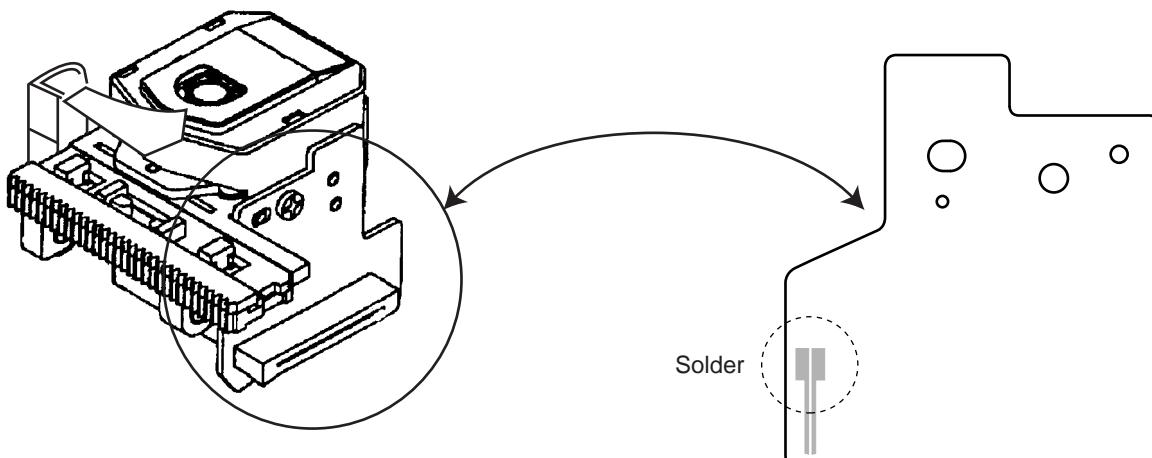
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



### Precaution to replace Optical block

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the figure below.



## ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。  
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO        | PART NO.                     | KANRI NO. | DESCRIPTION | REF. NO        | PART NO.             | KANRI NO.             | DESCRIPTION |
|----------------|------------------------------|-----------|-------------|----------------|----------------------|-----------------------|-------------|
| IC             |                              |           |             |                |                      |                       |             |
| 8Z-DF8-602-010 | C-IC,LC87F65C8A-ZDF8         |           |             | 87-020-465-080 | DIODE,1SS133 (110MA) |                       |             |
| 87-A21-459-040 | C-IC,TC74ACT245F             |           |             | 87-A40-547-090 | DIODE,D5SBA20        |                       |             |
| 87-A20-914-010 | IC,SPS-442-1-F               |           |             | 87-070-274-080 | DIODE,1N4003 SEM     |                       |             |
| 87-A21-458-040 | C-IC,TC74ACT244F             |           |             | 87-A40-383-080 | ZENER,MTZJ30A        |                       |             |
| 8A-AJ1-627-010 | C-IC,EPF6016TC144-3          |           |             | 87-A40-345-080 | ZENER,MTZJ10C        |                       |             |
| 87-A20-696-010 | C-IC,AM186EM-33KC/W          |           |             | 87-A40-270-080 | C-DIODE,MC2838       |                       |             |
| 8A-AJ1-621-010 | C-IC ASSY,MBM29F400TC*1 AAJ1 |           |             | 87-A40-269-080 | C-DIODE,MC2836       |                       |             |
| 8A-AJ1-626-040 | C-IC,AT25160N-10SC           |           |             | 87-017-931-080 | ZENER,MTZJ5.6B       |                       |             |
| 87-017-830-080 | IC,TC7W14FU                  |           |             | 87-A40-393-090 | DIODE,1N5402GW(F20)  |                       |             |
| 8A-AJ1-625-040 | C-IC,KM6164000BLT-7LT        |           |             | 87-017-447-010 | DIODE,GBU4DL         |                       |             |
| 8A-AJ1-628-010 | IC,EPC1441PC8                |           |             | 87-A40-001-080 | ZENER,MTZJ12C        |                       |             |
| 8A-AJ1-616-040 | C-IC,CS8420-CS               |           |             | 87-A40-335-080 | ZENER,MTZJ11C T-72   |                       |             |
| 87-A21-021-040 | C-IC,BU2099FV                |           |             | 87-A40-246-080 | DIODE,IN4148 T-72    |                       |             |
| 8A-AJ1-617-040 | C-IC,CS4222-KS               |           |             | 87-017-978-080 | DIODE,1N4003         |                       |             |
| 86-NFZ-676-080 | C-IC,NJM4558MD               |           |             | 87-A40-509-080 | ZENER,MTZJ6.8C       |                       |             |
| 87-017-888-080 | IC,NJM4558MD                 |           |             | 87-A40-469-080 | C-DIODE,HSM2838CTR   |                       |             |
| 87-A21-023-040 | C-IC,BA3835F                 |           |             | 87-A40-468-080 | C-DIODE,HSM2836CTR   |                       |             |
| 87-A20-870-010 | IC,GP1F37R                   |           |             | 87-017-931-070 | ZENER,MTZJ5.6B       |                       |             |
| 87-A20-971-040 | C-IC,SN74LV14APW             |           |             | 87-A40-299-080 | ZENER,DZ5.1M         |                       |             |
| 87-027-842-080 | IC,NJM2904M                  |           |             | 87-XM1-603-080 | C-DIODE,ISS193       |                       |             |
| 87-A21-031-040 | C-IC,BU4551BF                |           |             | 87-A40-466-080 | ZENER,MTZJ2.7A       |                       |             |
| 87-A21-111-040 | C-IC,M62495FP                |           |             | 87-A40-464-080 | ZENER,MTZJ3.6A       |                       |             |
| 87-070-127-110 | IC,LC72131 D                 |           |             | 87-017-149-080 | ZENER,HZS6A2L        |                       |             |
| 87-A20-913-010 | IC,LA1837NL                  |           |             | INTERFACE C.B  |                      |                       |             |
| TRANSISTOR     |                              |           |             |                |                      |                       |             |
| 87-026-609-080 | TR,KTA1266GR                 |           |             | C201           | 87-010-402-040       | CAP,E 2.2-50 SME      |             |
| 89-213-702-010 | TR,2SB1370 (1.8W)            |           |             | C202           | 87-010-402-040       | CAP,E 2.2-50 SME      |             |
| 87-026-610-080 | TR,KTC3198GR                 |           |             | C301           | 87-010-196-080       | CHIP CAPACITOR,0.1-25 |             |
| 87-A30-076-080 | C-TR,2SC3052F                |           |             | C303           | 87-010-380-040       | CAP,E 47-16 SME       |             |
| 87-A30-075-080 | C-TR,2SA1235F                |           |             | C304           | 87-010-196-080       | CHIP CAPACITOR,0.1-25 |             |
| 87-A30-234-080 | TR,CSC4115BC                 |           |             | C305           | 87-010-075-040       | CAP,E 10-16 5L        |             |
| 87-A30-073-080 | C-TR,RT1N 141C               |           |             | C306           | 87-010-075-040       | CAP,E 10-16 5L        |             |
| 87-A30-186-010 | FET,2SK3053                  |           |             | C307           | 87-010-248-040       | CAP,E 220-10 SME      |             |
| 87-026-245-080 | TR,DTC114ES                  |           |             | C313           | 87-010-072-040       | CAP,E 2.2-50 5L       |             |
| 87-A30-198-080 | TR,KTC3199GR                 |           |             | C314           | 87-010-072-040       | CAP,E 2.2-50 5L       |             |
| 87-049-919-010 | CONN,3P EH V WHT             |           |             | C315           | 87-010-072-040       | CAP,E 2.2-50 5L       |             |
| 87-A30-087-080 | C-FET,2SK2158                |           |             | C316           | 87-010-072-040       | CAP,E 2.2-50 5L       |             |
| 89-113-625-080 | TR,2SA1362GR(120MHZ,0.       |           |             | C401           | 87-010-178-080       | CHIP CAP 1000P        |             |
| 87-A30-329-080 | TR,CD1585BC                  |           |             | C402           | 87-010-178-080       | CHIP CAP 1000P        |             |
| 87-A30-190-080 | TR,CC5551                    |           |             | C403           | 87-010-196-080       | CHIP CAPACITOR,0.1-25 |             |
| 87-A30-215-010 | TR,2SD2025                   |           |             | C404           | 87-010-196-080       | CHIP CAPACITOR,0.1-25 |             |
| 87-A30-214-010 | TR,2SB1344                   |           |             | C411           | 87-012-140-080       | CAP 470P              |             |
| 87-A30-106-070 | C-TR,CMBT5551                |           |             | C421           | 87-010-197-080       | CAP, CHIP 0.01 DM     |             |
| 87-A30-107-070 | C-TR,CMBT5401                |           |             | C701           | 87-012-140-080       | CAP 470P              |             |
| 87-026-227-080 | CHIP-TR,DTA114EK             |           |             | C702           | 87-010-235-080       | CAP,E 470-16 SME      |             |
| 87-026-235-080 | CHIP-TR,DTC114EK             |           |             | C705           | 87-012-368-080       | C-CAP,S 0.1-50 F      |             |
| 87-026-230-080 | CHIP-TR,DTA114YK             |           |             | C706           | 87-012-140-080       | CAP 470P              |             |
| 87-A30-256-010 | TR,2SD1933                   |           |             | C707           | 87-010-235-080       | CAP,E 470-16 SME      |             |
| 87-A30-255-010 | TR,2SB1342                   |           |             | C708           | 87-012-368-080       | C-CAP,S 0.1-50 F      |             |
| 87-A30-071-080 | C-TR,RT1N 144C               |           |             | C812           | 87-010-182-080       | C-CAP,S 2200P-50 B    |             |
| 87-026-225-080 | FET,2SJ106GR                 |           |             | C813           | 87-010-182-080       | C-CAP,S 2200P-50 B    |             |
| 87-A30-072-080 | C-TR,RT1P 144C               |           |             | C814           | 87-010-182-080       | C-CAP,S 2200P-50 B    |             |
| 87-A30-383-040 | C-TR,DTC144WKA               |           |             | C815           | 87-010-182-080       | C-CAP,S 2200P-50 B    |             |
| 87-A30-091-080 | FET,2SJ460                   |           |             | C816           | 87-012-156-080       | C-CAP,S 220P-50 CH    |             |
| 87-A30-074-080 | C-TR,RT1P 141C               |           |             | C817           | 87-012-156-080       | C-CAP,S 220P-50 CH    |             |
| 87-A30-090-080 | FET,2SK2541                  |           |             | C818           | 87-010-182-080       | C-CAP,S 2200P-50 B    |             |
| 87-A30-104-080 | C-TR,RT1N 441C               |           |             | C819           | 87-010-182-080       | C-CAP,S 2200P-50 B    |             |
| 89-333-317-880 | TR,2SC3331 (0.5W)            |           |             | C820           | 87-010-182-080       | C-CAP,S 2200P-50 B    |             |
| 89-341-165-080 | CHIP TRANSISTOR 2SC4116GR    |           |             | C821           | 87-010-182-080       | C-CAP,S 2200P-50 B    |             |
| 89-115-865-080 | C-TR,2SA1586GR               |           |             | C822           | 87-012-156-080       | C-CAP,S 220P-50 CH    |             |
| 87-A30-224-010 | TR,2SA1329Y                  |           |             | C823           | 87-012-156-080       | C-CAP,S 220P-50 CH    |             |
| 87-A30-217-010 | TR,2SB1436(R)                |           |             | C824           | 87-012-368-080       | C-CAP,S 0.1-50 F      |             |
| 87-026-213-080 | CHIP-TR,DTC114YK             |           |             | C850           | 87-010-408-040       | CAP,E 47-50 SME       |             |
| 89-327-143-080 | TR,2SC2714 (0.1W)            |           |             | C851           | 87-012-368-080       | C-CAP,S 0.1-50 F      |             |
|                |                              |           |             | C852           | 87-010-101-040       | CAP,E 220-16 SME      |             |
|                |                              |           |             | C853           | 87-010-072-040       | CAP,E 2.2-50 5L       |             |
|                |                              |           |             | C854           | 87-010-402-040       | CAP,E 2.2-50 SME      |             |
|                |                              |           |             | C855           | 87-010-402-040       | CAP,E 2.2-50 SME      |             |

| REF. NO   | PART NO.       | KANRI NO.                   | DESCRIPTION | REF. NO | PART NO.       | KANRI NO.                  | DESCRIPTION |
|-----------|----------------|-----------------------------|-------------|---------|----------------|----------------------------|-------------|
| C856      | 87-010-402-040 | CAP,E 2.2-50 SME            |             | C112    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| C951      | 87-010-316-080 | C-CAP, S 33P-50 J CH GRM    |             | C113    | 87-016-459-040 | CAP,E 470-10 SMG           |             |
| CON901    | 87-099-014-010 | CONN,12P 6216 V             |             | C114    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| CON902    | 87-099-749-010 | CONN,9P V 9604SC            |             | C116    | 87-015-694-040 | E/CAP 0.47-50              |             |
| CON903    | 8Z-DF8-678-010 | CONN,2P V SHIELD260MM       |             | C117    | 87-010-264-040 | CAP,E 100-10 5L            |             |
| CON904    | 87-099-194-010 | CONN,6P 6216V               |             | C118    | 87-010-194-080 | CAP, CHIP 0.047            |             |
| CON905    | 87-A60-623-010 | CONN,6P V 2MM JMT           |             | C119    | 87-A11-071-040 | CAP,E 47-50 SRG            |             |
| CON906    | 87-A60-621-010 | CONN,4P V 2MM JMT           |             | C120    | 87-015-698-040 | CAP,E 4.7-50 7L            |             |
| CON907    | 87-A60-623-010 | CONN,6P V 2MM JMT           |             | C121    | 87-010-421-040 | CAP,E 4.7-50 5L            |             |
| CON908    | 87-049-919-010 | CONN,3P EH V WHT            |             | C122    | 87-010-194-080 | CAP, CHIP 0.047            |             |
| CON909    | 87-049-469-010 | CONN,4P V                   |             | C123    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| CON919    | 87-A60-619-010 | CONN,2P V 2MM JMT           |             | C124    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| CON923    | 87-A60-619-010 | CONN,2P V 2MM JMT           |             | C125    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| CON924    | 87-A60-619-010 | CONN,2P V 2MM JMT           |             | C126    | 87-012-155-080 | C-CAP 180P-50CH            |             |
| CON925    | 87-049-919-010 | CONN,3P EH V WHT            |             | C127    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| FB101     | 87-A50-189-080 | C-COIL,S BLM21B272S         |             | C128    | 87-010-178-080 | CHIP CAP 1000P             |             |
| FB102     | 87-A50-189-080 | C-COIL,S BLM21B272S         |             | C130    | 87-010-312-080 | C-CAP,S 15P-50 CH          |             |
| L701      | 87-A50-267-010 | COIL,33UHRCR-875D           |             | C131    | 87-010-322-080 | C-CAP,S 100P-50 CH         |             |
| L702      | 87-A50-267-010 | COIL,33UHRCR-875D           |             | C195    | 87-010-194-080 | CAP, CHIP 0.047            |             |
| R318      | 87-A50-190-080 | C-COIL,S BLM21A102S         |             | C196    | 87-010-498-040 | CAP,E 10-16 GAS            |             |
| R319      | 87-A50-190-080 | C-COIL,S BLM21A102S         |             | C197    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| R415      | 87-A50-189-080 | C-COIL,S BLM21B272S         |             | C223    | 87-010-405-040 | CAP,E 10-50                |             |
| PT C.B    |                |                             |             | C224    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
|           |                |                             |             | C251    | 87-010-322-080 | C-CAP,S 100P-50 CH         |             |
|           |                |                             |             | C252    | 87-010-322-080 | C-CAP,S 100P-50 CH         |             |
| C1        | 87-010-387-080 | CAP,E 470-25 SME            |             | C253    | 87-010-322-080 | C-CAP,S 100P-50 CH         |             |
| C3        | 87-A11-148-080 | CAP,TC U 0.1-50 Z F         |             | C254    | 87-010-322-080 | C-CAP,S 100P-50 CH         |             |
| C4        | 87-A11-148-080 | CAP,TC U 0.1-50 Z F         |             | C255    | 87-010-322-080 | C-CAP,S 100P-50 CH         |             |
| C5        | 87-A11-148-080 | CAP,TC U 0.1-50 Z F         |             | C256    | 87-010-322-080 | C-CAP,S 100P-50 CH         |             |
| C6        | 87-A11-148-080 | CAP,TC U 0.1-50 Z F         |             | C272    | 87-010-322-080 | C-CAP,S 100P-50 CH         |             |
| C14       | 87-016-658-000 | CAP,E 4700-35 M SMG         |             | C273    | 87-010-322-080 | C-CAP,S 100P-50 CH         |             |
| C15       | 87-016-658-000 | CAP,E 4700-35 M SMG         |             | C351    | 87-012-158-080 | C-CAP,S 390P-50 CH         |             |
| C21       | 87-010-928-000 | CAP,E 4700-25 M SMG         |             | C352    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| C22       | 87-016-121-090 | CAP,E 6800-16 SMG           |             | C353    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| C25       | 87-A11-148-080 | CAP,TC U 0.1-50 Z F         |             | C354    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| C26       | 87-A11-148-080 | CAP,TC U 0.1-50 Z F         |             | C355    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| C31       | 87-010-403-080 | CAP, ELECT 3.3-50V          |             | C356    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| CN1       | 87-A60-851-010 | CONN,9P V VH                |             | C357    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             |
| CN5       | 8Z-DF8-623-010 | CONN ASSY,3P PT             |             | C421    | 87-015-686-040 | CAP,E 22-25 M 7L SRA       |             |
| △F3       | 87-A91-276-080 | FUSE,125MA 125V F 251       |             | CON101  | 87-099-720-010 | CONN,30P TYK-B(P)          |             |
| △F9       | 87-026-691-080 | FUSE,10A 125V 251           |             | CON102  | 87-A60-055-010 | CONN,13P V 9604S-13C       |             |
| △F10      | 87-026-690-080 | FUSE,5A 125V 251            |             | CON104  | 87-099-017-010 | CONN, 15P 6216 V           |             |
| JW20      | 87-A90-210-080 | FUSE,7A 125V 251            |             | CON502  | 87-099-197-010 | CONN, 9P 6216 V            |             |
| JW21      | 87-A90-210-080 | FUSE,7A 125V 251            |             | FL101   | 8Z-DF8-601-010 | FL,BJ735GNK                |             |
| JW24      | 87-017-430-080 | DIODE,RK14                  |             | L331    | 87-A50-333-010 | COIL,OSC 9.43MHZ           |             |
| △L1       | 87-A91-453-010 | FLTR,LINE PLH10A7003R6P02B1 |             | LED201  | 87-A40-452-080 | LED,SEL6210S-TP7 RED       |             |
| △PT2      | 8Z-NF8-661-010 | PT,SUB ZNF-8(U)             |             | LED202  | 87-A40-452-080 | LED,SEL6210S-TP7 RED       |             |
| △T1       | 87-A60-317-010 | TERMINAL, 1P MSC            |             | LED203  | 87-A40-452-080 | LED,SEL6210S-TP7 RED       |             |
| △T2       | 87-A60-317-010 | TERMINAL, 1P MSC            |             | LED204  | 87-A40-452-080 | LED,SEL6210S-TP7 RED       |             |
| FRONT C.B |                |                             |             | LED205  | 87-A40-452-080 | LED,SEL6210S-TP7 RED       |             |
| C1        | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED206  | 87-A40-451-080 | LED,SEL6510C-TP7 GRN       |             |
| C2        | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED207  | 87-A40-451-080 | LED,SEL6510C-TP7 GRN       |             |
| C3        | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED208  | 87-A40-451-080 | LED,SEL6510C-TP7 GRN       |             |
| C4        | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED209  | 87-A40-451-080 | LED,SEL6510C-TP7 GRN       |             |
| C5        | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED217  | 87-A40-619-080 | LED,SLR-56PT-TE7-W GRN     |             |
| C6        | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED218  | 87-A40-619-080 | LED,SLR-56PT-TE7-W GRN     |             |
| C7        | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED219  | 87-A40-619-080 | LED,SLR-56PT-TE7-W GRN     |             |
| C8        | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED220  | 87-A40-619-080 | LED,SLR-56PT-TE7-W GRN     |             |
| C9        | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED221  | 87-A40-619-080 | LED,SLR-56PT-TE7-W GRN     |             |
| C10       | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED222  | 87-A40-619-080 | LED,SLR-56PT-TE7-W GRN     |             |
| C11       | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED251  | 87-A40-564-010 | LED,SEL6215S-LF62 RED      |             |
| C12       | 87-012-349-080 | C-CAP,S 1000P-50 CH         |             | LED252  | 87-A40-564-010 | LED,SEL6215S-LF62 RED      |             |
| C13       | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED371  | 87-A90-825-040 | LED,SLP-9131C-81H-S-T1 RED |             |
| C103      | 87-010-197-080 | CAP, CHIP 0.01 DM           |             | LED601  | 87-A40-619-040 | LED,SLR-56PT-T31-W GRN     |             |
| C104      | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED602  | 87-A40-619-040 | LED,SLR-56PT-T31-W GRN     |             |
| C105      | 87-012-156-080 | C-CAP,S 220P-50 CH          |             | LED603  | 87-A40-619-040 | LED,SLR-56PT-T31-W GRN     |             |
| C107      | 87-012-157-080 | C-CAP,S 330P-50 CH          |             | LED604  | 87-A40-619-040 | LED,SLR-56PT-T31-W GRN     |             |
| C108      | 87-010-075-040 | CAP,E 10-16 5L              |             | LED605  | 87-A40-619-040 | LED,SLR-56PT-T31-W GRN     |             |
|           |                |                             |             | LED606  | 87-A40-619-040 | LED,SLR-56PT-T31-W GRN     |             |

| REF. NO  | PART NO.       | KANRI NO.              | DESCRIPTION | REF. NO | PART NO.       | KANRI NO.             | DESCRIPTION |
|----------|----------------|------------------------|-------------|---------|----------------|-----------------------|-------------|
| LED607   | 87-A40-619-040 | LED,SLR-56PT-T31-W GRN |             | C61     | 87-010-260-080 | CAP, ELECT 47-25V     |             |
| LED608   | 87-A40-619-040 | LED,SLR-56PT-T31-W GRN |             | C62     | 87-010-403-080 | CAP, ELECT 3.3-50V    |             |
| LED650   | 87-A40-451-080 | LED,SEL6510C-TP7 GRN   |             | C91     | 87-010-401-080 | CAP, ELECT 1-50V      |             |
| S301     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C92     | 87-010-380-080 | CAP, ELECT 47-16V     |             |
| S302     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C93     | 87-010-380-080 | CAP, ELECT 47-16V     |             |
| S303     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C101    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S304     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C101    | 87-010-178-080 | CHIP CAP 1000P        |             |
| S305     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C102    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S306     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C102    | 87-010-178-080 | CHIP CAP 1000P        |             |
| S307     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C103    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S308     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C103    | 87-010-405-080 | CAP, ELECT 10-50V     |             |
| S309     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C104    | 87-010-405-080 | CAP, ELECT 10-50V     |             |
| S310     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C105    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S311     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C107    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S312     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C107    | 87-010-408-080 | CAP, ELECT 47-50V     |             |
| S313     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C108    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S314     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C108    | 87-010-408-080 | CAP, ELECT 47-50V     |             |
| S315     | 87-A90-095-080 | SW,TACT EVQ11G04M      |             | C109    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S316     | 87-A90-095-080 | SW,TACT EVQ11G04M      |             | C109    | 87-010-322-080 | C-CAP,S 100P-50 CH    |             |
| S317     | 87-A90-095-080 | SW,TACT EVQ11G04M      |             | C110    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S318     | 87-A90-095-080 | SW,TACT EVQ11G04M      |             | C110    | 87-010-322-080 | C-CAP,S 100P-50 CH    |             |
| S319     | 87-A90-095-080 | SW,TACT EVQ11G04M      |             | C111    | 87-010-260-080 | CAP, ELECT 47-25V     |             |
| S320     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C112    | 87-010-260-080 | CAP, ELECT 47-25V     |             |
| S321     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C113    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S322     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C113    | 87-A10-946-080 | C-CAP,S 220P-100 J CH |             |
| S323     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C114    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S324     | 87-A90-095-080 | SW,TACT EVQ11G04M      |             | C114    | 87-A10-946-080 | C-CAP,S 220P-100 J CH |             |
| S325     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C115    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S326     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C116    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S327     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C117    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S328     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C117    | 87-010-400-080 | CAP, ELECT 0.47-50V   |             |
| S329     | 87-A90-095-080 | SW,TACT EVQ11G04M      |             | C118    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S330     | 87-A90-095-080 | SW,TACT EVQ11G04M      |             | C118    | 87-010-400-080 | CAP, ELECT 0.47-50V   |             |
| S331     | 87-A90-095-080 | SW,TACT EVQ11G04M      |             | C119    | 87-012-154-080 | C-CAP,S 150P-50 CH    |             |
| S334     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C120    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S335     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C121    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| S337     | 87-A91-024-180 | SW,TACT KSH0611BT      |             | C121    | 87-010-178-080 | CHIP CAP 1000P        |             |
| SW101    | 87-A90-535-010 | SW,RTRY EC16B24304     |             | C122    | 87-010-154-080 | CAP CHIP 10P          |             |
| SW102    | 87-A90-950-010 | SW,RTRY EC12E12504     | ENCORDER    | C122    | 87-010-178-080 | CHIP CAP 1000P        |             |
| TP108    | 87-009-371-010 | CONNECTOR, 6P          |             | C123    | 87-010-176-080 | C-CAP,S 680P-50 SL    |             |
| MAIN C.B |                |                        |             | C123    | 87-010-154-080 | CAP CHIP 10P          |             |
| C1       | 87-012-369-080 | C-CAP,S 0.047-50F      |             | C124    | 87-010-176-080 | C-CAP,S 680P-50 SL    |             |
| C2       | 87-012-369-080 | C-CAP,S 0.047-50F      |             | C124    | 87-010-831-080 | C-CAP,U,0.1-16F       |             |
| C3       | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C125    | 87-010-831-080 | C-CAP,S 0.1-50 F      |             |
| C4       | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C126    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C5       | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C126    | 87-010-831-080 | C-CAP,U,0.1-16F       |             |
| C6       | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C127    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C9       | 87-A10-520-000 | CAP,E 3300-35 M SMG    |             | C127    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C10      | 87-A10-520-000 | CAP,E 3300-35 M SMG    |             | C128    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C21      | 87-010-385-080 | CAP, ELECT 220-25V     |             | C129    | 87-010-191-080 | C-CAP,S 0.015-50 F    |             |
| C22      | 87-010-385-080 | CAP, ELECT 220-25V     |             | C129    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C23      | 87-010-247-080 | CAP, ELECT 100-50V     |             | C130    | 87-010-191-080 | C-CAP,S 0.015-50 F    |             |
| C24      | 87-010-247-080 | CAP, ELECT 100-50V     |             | C130    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C25      | 87-010-430-080 | CAP, ELECT 100-63      |             | C131    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C26      | 87-010-263-080 | CAP, ELECT 100-10V     |             | C131    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C27      | 87-010-197-080 | CAP, CHIP 0.01 DM      |             | C132    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C28      | 87-010-263-080 | CAP, ELECT 100-10V     |             | C132    | 87-010-252-080 | CAP, ELECT 1000-6.3V  |             |
| C29      | 87-010-247-080 | CAP, ELECT 100-50V     |             | C133    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C30      | 87-010-381-080 | CAP, ELECT 330-16V     |             | C133    | 87-010-391-040 | CAP,E 10-35 SME       |             |
| C31      | 87-010-235-080 | CAP,E 470-16 SME       |             | C134    | 87-012-142-080 | CAP, S 0.33-16        |             |
| C32      | 87-010-405-080 | CAP, ELECT 10-50V      |             | C137    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C33      | 87-010-405-080 | CAP, ELECT 10-50V      |             | C138    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C34      | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C139    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C35      | 87-010-198-080 | CAP, CHIP 0.022        |             | C201    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C36      | 87-010-198-080 | CAP, CHIP 0.022        |             | C203    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C40      | 87-010-112-080 | CAP, ELECT 100-16V     |             | C203    | 87-010-177-080 | C-CAP,S 820P-50 SL    |             |
| C50      | 87-010-182-080 | C-CAP,S 2200P-50 B     |             | C204    | 87-016-526-080 | C-CAP,S 0.47-16 BK    |             |
| C51      | 87-010-180-080 | C-CER 1500P            |             | C204    | 87-010-177-080 | C-CAP,S 820P-50 SL    |             |

| REF. NO | PART NO.       | KANRI NO.              | DESCRIPTION | REF. NO | PART NO.       | KANRI NO.             | DESCRIPTION |
|---------|----------------|------------------------|-------------|---------|----------------|-----------------------|-------------|
| C205    | 87-010-189-080 | C-CAP,S 8200P-50 B     |             | C451    | 87-010-198-080 | CAP, CHIP 0.022       |             |
| C206    | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C452    | 87-010-382-080 | CAP, ELECT 22-25V     |             |
| C207    | 87-012-156-080 | C-CAP,S 220P-50 CH     |             | C453    | 87-010-183-080 | C-CAP,S 2700P-50 B    |             |
| C208    | 88-XMY-614-080 | C-CAP,TN 10U-10 TCFG A |             | C454    | 87-010-183-080 | C-CAP,S 2700P-50 B    |             |
| C209    | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C454    | 87-010-805-080 | CAP, S 1-16           |             |
| C209    | 87-010-403-080 | CAP, ELECT 3.3-50V     |             | C455    | 87-010-183-080 | C-CAP,S 2700P-50 B    |             |
| C210    | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C455    | 87-010-805-080 | CAP, S 1-16           |             |
| C210    | 87-010-403-080 | CAP, ELECT 3.3-50V     |             | C456    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C211    | 88-XMY-614-080 | C-CAP,TN 10U-10 TCFG A |             | C456    | 87-010-552-040 | CAP,E 22-16 GAS       |             |
| C211    | 87-010-181-080 | CAP,CHIP S 1800P       |             | C457    | 87-012-368-080 | C-CAP,S 0.1-50 F      |             |
| C212    | 87-010-181-080 | CAP,CHIP S 1800P       |             | C458    | 87-010-178-080 | CHIP CAP 1000P        |             |
| C213    | 87-010-403-080 | CAP, ELECT 3.3-50V     |             | C459    | 87-010-175-080 | CAP 560P              |             |
| C214    | 87-010-403-080 | CAP, ELECT 3.3-50V     |             | C461    | 87-012-158-080 | C-CAP,S 390P-50 CH    |             |
| C215    | 87-010-322-080 | C-CAP,S 100P-50 CH     |             | C462    | 87-012-158-080 | C-CAP,S 390P-50 CH    |             |
| C216    | 87-010-322-080 | C-CAP,S 100P-50 CH     |             | C501    | 87-010-401-080 | CAP, ELECT 1-50V      |             |
| C217    | 87-010-260-080 | CAP, ELECT 47-25V      |             | C502    | 87-010-401-080 | CAP, ELECT 1-50V      |             |
| C218    | 87-010-260-080 | CAP, ELECT 47-25V      |             | C507    | 87-010-196-080 | CHIP CAPACITOR,0.1-25 |             |
| C219    | 87-A10-946-080 | C-CAP,S 220P-100 J CH  |             | C508    | 87-010-196-080 | CHIP CAPACITOR,0.1-25 |             |
| C220    | 87-A10-946-080 | C-CAP,S 220P-100 J CH  |             | C605    | 87-010-179-080 | CAP,CHIP S B1200P     |             |
| C225    | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C606    | 87-010-179-080 | CAP,CHIP S B1200P     |             |
| C226    | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C609    | 87-010-213-080 | C-CAP,S 0.015-50 B    |             |
| C227    | 87-010-186-080 | CAP,CHIP 4700P         |             | C610    | 87-010-213-080 | C-CAP,S 0.015-50 B    |             |
| C228    | 87-010-186-080 | CAP,CHIP 4700P         |             | C611    | 87-010-545-080 | CAP, ELECT 0.22-50V   |             |
| C229    | 87-010-993-080 | C-CAP,S 0.056-25 B     |             | C612    | 87-010-545-080 | CAP, ELECT 0.22-50V   |             |
| C230    | 87-010-993-080 | C-CAP,S 0.056-25 B     |             | C613    | 87-010-545-080 | CAP, ELECT 0.22-50V   |             |
| C231    | 87-010-196-080 | CHIP CAPACITOR,0.1-25  |             | C614    | 87-010-545-080 | CAP, ELECT 0.22-50V   |             |
| C232    | 87-010-196-080 | CHIP CAPACITOR,0.1-25  |             | C615    | 87-010-154-080 | CAP CHIP 10P          |             |
| C233    | 87-010-190-080 | S CHIP F 0.01          |             | C616    | 87-010-385-080 | CAP, ELECT 220-25V    |             |
| C234    | 87-010-190-080 | S CHIP F 0.01          |             | C617    | 87-010-385-080 | CAP, ELECT 220-25V    |             |
| C235    | 87-010-182-080 | C-CAP,S 2200P-50 B     |             | C631    | 87-010-178-080 | CHIP CAP 1000P        |             |
| C235    | 87-016-285-080 | CAP,E 47-100SME        |             | C632    | 87-010-178-080 | CHIP CAP 1000P        |             |
| C236    | 87-010-182-080 | C-CAP,S 2200P-50 B     |             | C669    | 87-010-322-080 | C-CAP,S 100P-50 CH    |             |
| C236    | 87-016-285-080 | CAP,E 47-100SME        |             | C670    | 87-010-322-080 | C-CAP,S 100P-50 CH    |             |
| C237    | 87-010-322-080 | C-CAP,S 100P-50 CH     |             | C677    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C238    | 87-010-322-080 | C-CAP,S 100P-50 CH     |             | C701    | 87-010-381-080 | CAP, ELECT 330-16V    |             |
| C239    | 87-010-196-080 | CHIP CAPACITOR,0.1-25  |             | C702    | 87-010-404-080 | CAP, ELECT 4.7-50V    |             |
| C240    | 87-010-407-080 | CAP, ELECT 33-50V      |             | C703    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C243    | 87-010-407-080 | CAP, ELECT 33-50V      |             | C704    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C301    | 87-010-178-080 | CHIP CAP 1000P         |             | C709    | 87-010-322-080 | C-CAP,S 100P-50 CH    |             |
| C302    | 87-010-178-080 | CHIP CAP 1000P         |             | C711    | 87-010-260-080 | CAP, ELECT 47-25V     |             |
| C303    | 87-010-178-080 | CHIP CAP 1000P         |             | C712    | 87-010-196-080 | CHIP CAPACITOR,0.1-25 |             |
| C304    | 87-010-178-080 | CHIP CAP 1000P         |             | C713    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C305    | 87-010-198-080 | CAP, CHIP 0.022        |             | C714    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C307    | 87-010-263-080 | CAP, ELECT 100-10V     |             | C721    | 87-010-312-080 | C-CAP,S 15P-50 CH     |             |
| C308    | 87-010-263-080 | CAP, ELECT 100-10V     |             | C722    | 87-010-312-080 | C-CAP,S 15P-50 CH     |             |
| C309    | 87-010-318-080 | C-CAP,S 47P-50 CH      |             | C723    | 87-010-178-080 | CHIP CAP 1000P        |             |
| C310    | 87-010-318-080 | C-CAP,S 47P-50 CH      |             | C725    | 87-010-178-080 | CHIP CAP 1000P        |             |
| C311    | 87-010-598-080 | C-CAP,S 0.068-16VRK    |             | C727    | 87-010-196-080 | CHIP CAPACITOR,0.1-25 |             |
| C312    | 87-010-598-080 | C-CAP,S 0.068-16VRK    |             | C728    | 87-010-248-080 | CAP, ELECT 220-10V    |             |
| C313    | 87-010-187-080 | CAP CHIP S5600P        |             | C751    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C314    | 87-010-187-080 | CAP CHIP S5600P        |             | C755    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C315    | 87-010-263-080 | CAP, ELECT 100-10V     |             | C756    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C317    | 87-010-546-080 | CAP, ELECT 0.33-50V    |             | C757    | 87-010-318-080 | C-CAP,S 47P-50 CH     |             |
| C318    | 87-010-546-080 | CAP, ELECT 0.33-50V    |             | C758    | 87-010-149-080 | C-CAP,S 5P-50 CH      |             |
| C326    | 87-010-198-080 | CAP, CHIP 0.022        |             | C759    | 87-012-156-080 | C-CAP,S 220P-50 CH    |             |
| C327    | 87-012-368-080 | C-CAP,S 0.1-50 F       |             | C760    | 87-012-156-080 | C-CAP,S 220P-50 CH    |             |
| C360    | 87-010-401-080 | CAP, ELECT 1-50V       |             | C761    | 87-010-196-080 | CHIP CAPACITOR,0.1-25 |             |
| C399    | 87-012-140-080 | CAP 470P               |             | C762    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C401    | 87-010-544-080 | CAP, ELECT 0.1-50V     |             | C763    | 87-010-194-080 | CAP, CHIP 0.047       |             |
| C402    | 87-010-544-080 | CAP, ELECT 0.1-50V     |             | C764    | 87-010-319-080 | C-CAP,S 56P-50 CH     |             |
| C403    | 87-010-321-080 | CHIP CAPACITOR,82P(J)  |             | C765    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C404    | 87-010-321-080 | CHIP CAPACITOR,82P(J)  |             | C766    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C405    | 87-010-197-080 | CAP, CHIP 0.01 DM      |             | C767    | 87-010-405-080 | CAP, ELECT 10-50V     |             |
| C406    | 87-010-197-080 | CAP, CHIP 0.01 DM      |             | C768    | 87-010-197-080 | CAP, CHIP 0.01 DM     |             |
| C407    | 87-010-197-080 | CAP, CHIP 0.01 DM      |             | C769    | 87-010-408-080 | CAP, ELECT 47-50V     |             |
| C408    | 87-010-197-080 | CAP, CHIP 0.01 DM      |             | C770    | 87-015-821-080 | C-CAP 0.047           |             |
| C409    | 87-010-182-080 | C-CAP,S 2200P-50 B     |             | C771    | 87-010-407-080 | CAP, ELECT 33-50V     |             |
| C410    | 87-010-182-080 | C-CAP,S 2200P-50 B     |             | C772    | 87-010-194-080 | CAP, CHIP 0.047       |             |
| C411    | 87-010-405-080 | CAP, ELECT 10-50V      |             | C773    | 87-010-196-080 | CHIP CAPACITOR,0.1-25 |             |
| C412    | 87-010-405-080 | CAP, ELECT 10-50V      |             | C774    | 87-010-263-080 | CAP, ELECT 100-10V    |             |

| REF. NO | PART NO.       | KANRI NO.                  | DESCRIPTION | REF. NO  | PART NO.       | KANRI NO.                      | DESCRIPTION |
|---------|----------------|----------------------------|-------------|----------|----------------|--------------------------------|-------------|
| C775    | 87-010-404-080 | CAP, ELECT 4.7-50V         |             | J203     | 87-A60-238-010 | TERMINAL,SP 4P (MSC)           |             |
| C776    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | J204     | 87-A60-750-010 | JACK,PIN 4P R/W BLUE           |             |
| C777    | 87-010-400-080 | CAP, ELECT 0.47-50V        |             | J602     | 87-A60-881-010 | JACK,PIN 2P MSP 242V05 PBSN    |             |
| C778    | 87-010-401-080 | CAP, ELECT 1-50V           |             | J801     | 87-A60-202-010 | TERMINAL,ANT 4P MSP-154V-02    |             |
| C779    | 87-010-401-080 | CAP, ELECT 1-50V           |             | JR201    | 87-A91-685-080 | C-F-BEAD, BLM11B121SB          |             |
| C780    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             | JW811    | 87-008-372-080 | FILTER, EMI BL OIRNI           |             |
| C781    | 87-010-405-080 | CAP, ELECT 10-50V          |             | L101     | 87-003-383-010 | COIL,1UH-S                     |             |
| C782    | 87-010-405-080 | CAP, ELECT 10-50V          |             | L102     | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C783    | 87-015-819-080 | CAPACITOR,0.01             |             | L102     | 87-003-383-010 | COIL,1UH-S                     |             |
| C784    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | L103     | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C785    | 87-010-400-080 | CAP, ELECT 0.47-50V        |             | L105     | 87-A91-502-080 | C-F-BEAD, BLM11B750SA          |             |
| C786    | 87-010-400-080 | CAP, ELECT 0.47-50V        |             | L106     | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C789    | 87-010-179-080 | CAP,CHIP S B1200P          |             | L107     | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C790    | 87-010-179-080 | CAP,CHIP S B1200P          |             | L108     | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C791    | 87-010-405-080 | CAP, ELECT 10-50V          |             | L125     | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C793    | 87-010-177-080 | C-CAP,S 820P-50 SL         |             | L126     | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C794    | 87-010-406-080 | CAP, ELECT 22-50           |             | L201     | 87-005-780-080 | C-COIL,10UH FLC32C             |             |
| C795    | 87-010-596-080 | CAP, S 0.047-16            |             | L201     | 87-003-383-010 | COIL,1UH-S                     |             |
| C796    | 87-010-403-080 | CAP, ELECT 3.3-50V         |             | L202     | 87-005-780-080 | C-COIL,10UH FLC32C             |             |
| C797    | 87-010-183-080 | C-CAP,S 2700P-50 B         |             | L202     | 87-003-383-010 | COIL,1UH-S                     |             |
| C798    | 87-010-183-080 | C-CAP,S 2700P-50 B         |             | L451     | 87-007-342-010 | COIL,OSC 85K BIAS              |             |
| C799    | 87-010-194-080 | CAP, CHIP 0.047            |             | L771     | 87-A50-266-010 | COIL,FM DET-2N(TOK)            |             |
| C812    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | L772     | 87-A91-110-010 | FLTR,PCFJZH-450 (TOK)          |             |
| C813    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | L781     | 87-005-847-080 | COIL,2.2UH(CECS)               |             |
| C814    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | L832     | 87-005-847-080 | COIL,2.2UH(CECS)               |             |
| C815    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | L981     | 8Z-ZA1-650-010 | COIL,AM PACK4C (TOK)           |             |
| C816    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | R20      | 87-A00-261-080 | RES,M/F 0.56-1W J              |             |
| C819    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | R110     | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C820    | 87-010-408-080 | CAP, ELECT 47-50V          |             | R128     | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C821    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | R129     | 87-A00-257-080 | RES,M/F 0.15-1W J              |             |
| C822    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | R130     | 87-A00-257-080 | RES,M/F 0.15-1W J              |             |
| C823    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | R131     | 87-A00-257-080 | RES,M/F 0.15-1W J              |             |
| C828    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             | R132     | 87-A00-257-080 | RES,M/F 0.15-1W J              |             |
| C829    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             | R140     | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C959    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             | R150     | 87-010-178-080 | CHIP CAP 1000P                 |             |
| C960    | 87-010-196-080 | CHIP CAPACITOR,0.1-25      |             | R152     | 87-010-178-080 | CHIP CAP 1000P                 |             |
| C961    | 87-010-152-080 | C-CAP,S 8P-50 CH           |             | R165     | 87-A00-257-080 | RES,M/F 0.15-1W J              |             |
| C967    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | R166     | 87-A00-257-080 | RES,M/F 0.15-1W J              |             |
| C968    | 87-010-197-080 | CAP, CHIP 0.01 DM          |             | R202     | 87-010-322-080 | C-CAP,S 100P-50 CH             |             |
| C972    | 87-012-368-080 | C-CAP,S 0.1-50 F           |             | R231     | 87-A00-258-080 | RES,M/F 0.22-1W J              |             |
| C973    | 87-012-349-080 | C-CAP,S 1000P-50 CH        |             | R232     | 87-A00-258-080 | RES,M/F 0.22-1W J              |             |
| C974    | 87-010-322-080 | C-CAP,S 100P-50 CH         |             | R233     | 87-A00-258-080 | RES,M/F 0.22-1W J              |             |
| C977    | 87-012-153-080 | C-CAP,S 120P-50 CH         |             | R234     | 87-A00-258-080 | RES,M/F 0.22-1W J              |             |
| C981    | 87-015-785-080 | CHIP CAPACITOR, 0.1FZ-25Z  |             | R265     | 87-A00-258-080 | RES,M/F 0.22-1W J              |             |
| C985    | 87-010-178-080 | CHIP CAP 1000P             |             | R266     | 87-A00-258-080 | RES,M/F 0.22-1W J              |             |
| C989    | 87-012-276-080 | CAP, CHIP SS 1500 PBK      |             | R392     | 87-012-349-080 | C-CAP,S 1000P-50 CH            |             |
| C994    | 87-012-165-080 | CAP 3P                     |             | R467     | 87-022-607-010 | RES,M/F 0.47-1W J              |             |
| C995    | 87-012-368-080 | C-CAP,S 0.1-50 F           |             | R468     | 87-A00-420-080 | C-RES,S 100K-1/10W B           |             |
| C996    | 87-012-368-080 | C-CAP,S 0.1-50 F           |             | R469     | 87-022-355-080 | C-RES,S 10K-1/10W F            |             |
| C997    | 87-012-368-080 | C-CAP,S 0.1-50 F           |             | R470     | 87-A00-420-080 | C-RES,S 100K-1/10W B           |             |
| C998    | 87-012-368-080 | C-CAP,S 0.1-50 F           |             | R471     | 87-A00-420-080 | C-RES,S 100K-1/10W B           |             |
| C999    | 87-012-368-080 | C-CAP,S 0.1-50 F           |             | R472     | 87-A00-420-080 | C-RES,S 100K-1/10W B           |             |
| CF801   | 87-008-261-010 | FILTER, SFE10.7MA5-A       |             | R942     | 87-A91-667-080 | C-F-BEAD, U BLM11B102S         |             |
| CF802   | 87-008-261-010 | FILTER, SFE10.7MA5-A       |             | R949     | 87-A91-667-080 | C-F-BEAD, U BLM11B102S         |             |
| CN101   | 8Z-DF8-615-010 | CONN,40P H IMSA-9031B      |             | R972     | 87-A91-667-080 | C-F-BEAD, U BLM11B102S         |             |
| CN102   | 87-009-034-010 | CONN,6P PH V               |             | R973     | 87-A91-667-080 | C-F-BEAD, U BLM11B102S         |             |
| CN104   | 87-009-349-010 | CONN,6P PH H               |             | △RY2     | 87-A90-976-010 | RELAY,AC12V SDT-S-112LMR       |             |
| CN151   | 87-009-034-010 | CONN,6P PH V               |             | SFR451   | 87-024-355-080 | SFR,33K DIA6 H                 |             |
| CN201   | 87-009-034-010 | CONN,6P PH V               |             | SFR452   | 87-024-355-080 | SFR,33K DIA6 H                 |             |
| CN202   | 87-009-347-010 | CONN,4P PH H WHT           |             | T981     | 87-A91-639-010 | TRANS,BALUN FM                 |             |
| CN301   | 87-A60-620-010 | CONN,3P V 2MM JMT          |             | WH1      | 87-A90-510-010 | HLDL, WIRE 2.5-9P              |             |
| CN351   | 87-A60-625-010 | CONN,8P V 2MM JMT          |             | X101     | 8A-AJ1-619-080 | VIB,XTAL 33MHZ AT-49           |             |
| CN451   | 87-009-032-010 | CONNECTOR,4P YEL           |             | X102     | 87-A70-236-040 | C-VIB,XTAL 33.8688MHZ DS0751SA |             |
| CN452   | 87-A60-457-010 | CONN,4P V TID-X            |             | X721     | 87-A70-061-010 | VIB,XTAL 4.500MHZ CSA-309      |             |
| CN601   | 88-NF9-657-010 | CONN,30P H BLK TYK-B(X)    |             |          |                |                                |             |
| CN603   | 87-099-014-010 | CONN,12P 6216 V            |             | CD-R C.B |                |                                |             |
| CNA1    | 8Z-NF8-669-110 | CONN ASSY,9P VH            |             |          |                |                                |             |
| FB602   | 87-008-372-080 | FILTER, EMI BL OIRNI       |             | C101     | 87-012-368-080 | C-CAP,S 0.1-50 F               |             |
| FFE801  | A8-6ZA-19C-170 | 6ZA-1 YFEENC               |             | C102     | 87-012-368-080 | C-CAP,S 0.1-50 F               |             |
| J201    | 87-A60-929-010 | JACK,DIA6.3 BLK ST W/S TAI |             | C103     | 87-012-368-080 | C-CAP,S 0.1-50 F               |             |

| REF. NO | PART NO.       | KANRI NO.                | DESCRIPTION | REF. NO | PART NO.       | KANRI NO.                      | DESCRIPTION |
|---------|----------------|--------------------------|-------------|---------|----------------|--------------------------------|-------------|
| C104    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | C1007   | 87-018-125-080 | CAP,TC U 330P-50 K             |             |
| C105    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | C1008   | 87-018-120-080 | CAP,TC U 120P-50 K             |             |
| C106    | 87-010-401-040 | CAP,E 1-50 SME           |             | C1011   | 87-010-322-080 | C-CAP,S 100P-50 J CH           |             |
| C107    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | CN101   | 87-A60-458-010 | CONN,40P V IMSA-9031B          |             |
| C108    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | CN102   | 87-009-034-010 | CONN,6P PH V                   |             |
| C110    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | CN201   | 87-009-038-010 | CONN,10P PH                    |             |
| C113    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | CN202   | 87-009-038-010 | CONN,10P PH                    |             |
| C114    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | CN451   | 8A-AJ1-637-010 | CONN ASSY,4P 240MM-PWLMT       |             |
| C115    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | CN452   | 87-A60-457-010 | CONN,4P V TID-X                |             |
| C116    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | CNA101  | 8A-AJ1-632-010 | CONN ASSY,40P 140MM-IDE        |             |
| C117    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | CNA103  | 8A-AJ1-633-010 | CONN ASSY,7P 270MM-PWM         |             |
| C118    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | CNA452  | 8A-AJ1-631-010 | CONN ASSY,4P 270MM-PD          |             |
| C119    | 87-012-154-080 | C-CAP,S 150P-50 J CH GRM |             | JR201   | 87-A91-685-080 | C-F-BEAD, BLM11B121SB          |             |
| C120    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L102    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C121    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L103    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C122    | 87-010-154-080 | CAP CHIP,10P             |             | L105    | 87-A91-502-080 | C-F-BEAD, BLM11B750SA          |             |
| C123    | 87-010-154-080 | CAP CHIP,10P             |             | L106    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C124    | 87-010-831-080 | C-CAP,U,0.1-16F          |             | L107    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C125    | 87-010-831-080 | C-CAP,U,0.1-16F          |             | L108    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C126    | 87-010-831-080 | C-CAP,U,0.1-16F          |             | L112    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C127    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L113    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C128    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L114    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C129    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L115    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C130    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L116    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C131    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L117    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C132    | 87-010-252-080 | CAP,ELECT 1000-6.3V      |             | L118    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C133    | 87-010-391-040 | CAP,E 10-35 SME          |             | L120    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C137    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L121    | 87-A50-190-080 | C-COIL,S BLM21A102S            |             |
| C138    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L122    | 87-A50-190-080 | C-COIL,S BLM21A102S            |             |
| C201    | 87-010-197-080 | CAP,CHIP 0.01 DM         |             | L123    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C203    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L125    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C204    | 87-016-526-080 | C-CAP,S 0.47-16 BK       |             | L126    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C205    | 87-010-189-080 | C-CAP,S 8200P-50 B       |             | L201    | 87-005-780-080 | C-COIL,10UH FLC32C             |             |
| C206    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | L202    | 87-005-780-080 | C-COIL,10UH FLC32C             |             |
| C207    | 87-010-994-080 | C-CAP,S 680P-50 J CH     |             | R150    | 87-010-178-080 | C-CAP,S 1000P-50 KB            |             |
| C208    | 88-XMY-614-080 | C-CAP,TN 10U-10 TCFG A   |             | R202    | 87-010-322-080 | C-CAP,S 100P-50 J CH           |             |
| C209    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | R210    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C210    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | R468    | 87-A00-420-080 | C-RES,S 100K-1/10W B           |             |
| C211    | 88-XMY-614-080 | C-CAP,TN 10U-10 TCFG A   |             | R469    | 87-022-355-080 | C-RES,S 10K-1/10W F            |             |
| C235    | 87-010-182-080 | C-CAP,S 2200P-50 B       |             | R470    | 87-A00-420-080 | C-RES,S 100K-1/10W B           |             |
| C236    | 87-010-182-080 | C-CAP,S 2200P-50 B       |             | R471    | 87-A00-420-080 | C-RES,S 100K-1/10W B           |             |
| C241    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | R472    | 87-A00-420-080 | C-RES,S 100K-1/10W B           |             |
| C454    | 87-010-805-080 | CAP,S 1-16               |             | R932    | 83-XM1-617-080 | C-COIL,BK2125HM601             |             |
| C455    | 87-010-805-080 | CAP,S 1-16               |             | R941    | 87-A91-667-080 | C-F-BEAD,U BLM11B102S          |             |
| C456    | 87-010-552-040 | CAP,E 22-16 GAS          |             | R942    | 87-A91-667-080 | C-F-BEAD,U BLM11B102S          |             |
| C457    | 87-012-368-080 | C-CAP,S 0.1-50 F         |             | R949    | 87-A91-667-080 | C-F-BEAD,U BLM11B102S          |             |
| C491    | 87-010-498-040 | CAP,E 10-16 M 5L SRE     |             | R972    | 87-A91-667-080 | C-F-BEAD,U BLM11B102S          |             |
| C492    | 87-010-498-040 | CAP,E 10-16 M 5L SRE     |             | R973    | 87-A91-667-080 | C-F-BEAD,U BLM11B102S          |             |
| C966    | 87-010-196-080 | CHIP CAPACITOR,0.1-25    |             | X101    | 8A-AJ1-619-080 | VIB,XTAL 33MHZ AT-49           |             |
| C967    | 87-010-197-080 | CAP,CHIP 0.01 DM         |             | X102    | 87-A70-236-040 | C-VIB,XTAL 33.8688MHZ DSO751SA |             |
| C968    | 87-010-197-080 | CAP,CHIP 0.01 DM         |             |         |                |                                |             |
| C971    | 87-010-178-080 | C-CAP,S 1000P-50 KB      |             |         |                |                                |             |
| C972    | 87-010-196-080 | CHIP CAPACITOR,0.1-25    |             |         |                |                                |             |
| C974    | 87-010-322-080 | C-CAP,S 100P-50 CH       |             |         |                |                                |             |
| C976    | 87-010-196-080 | CHIP CAPACITOR,0.1-25    |             |         |                |                                |             |
| C977    | 87-010-196-080 | CHIP CAPACITOR,0.1-25    |             |         |                |                                |             |
| C978    | 87-010-196-080 | CHIP CAPACITOR,0.1-25    |             |         |                |                                |             |
| C985    | 87-010-178-080 | C-CAP,S 1000P-50 KB      |             |         |                |                                |             |
| C992    | 87-012-191-080 | C-CAP,U 68P-50 J CH      |             |         |                |                                |             |
| C995    | 87-010-196-080 | CHIP CAPACITOR,0.1-25    |             |         |                |                                |             |
| C997    | 87-A11-517-080 | C-CAP,S 820P-50 K CG     |             |         |                |                                |             |
| C998    | 87-010-196-080 | CHIP CAPACITOR,0.1-25    |             |         |                |                                |             |
| C999    | 87-010-196-080 | CHIP CAPACITOR,0.1-25    |             |         |                |                                |             |
| C1000   | 87-010-193-080 | C-CAP,S 0.033-25 ZF      |             |         |                |                                |             |
| C1001   | 87-012-157-080 | C-CAP,S 330P-50 J CH     |             |         |                |                                |             |
| C1002   | 87-012-157-080 | C-CAP,S 330P-50 J CH     |             |         |                |                                |             |
| C1003   | 87-012-157-080 | C-CAP,S 330P-50 J CH     |             |         |                |                                |             |
| C1004   | 87-012-153-080 | C-CAP,S 120P-50 J CH     |             |         |                |                                |             |
| C1005   | 87-012-153-080 | C-CAP,S 120P-50 J CH     |             |         |                |                                |             |
| C1006   | 87-018-125-080 | CAP,TC U 330P-50 K       |             |         |                |                                |             |

## TRANSISTOR ILLUSTRATION

- Regarding connectors, they are not stocked as they are not the initial order items.  
The connectors are available after they are supplied from connector manufacturers upon the order is received.

### ○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip Resistor Part Coding

8 8 - □ □ □

抵抗部品コード  
Resistor Code

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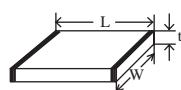
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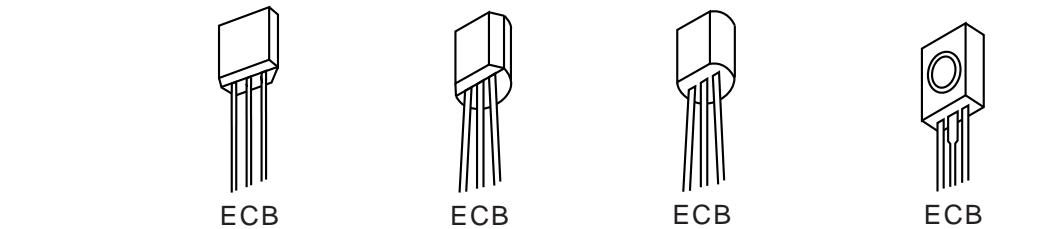
□

□

□

### チップ抵抗 Chip resistor

| 容量<br>Wattage | 種類<br>Type | 許容誤差<br>Tolerance | 記号<br>Symbol | 寸法／Dimensions (mm)   |     |      | 抵抗コード<br>Resistor Code : A |     |
|---------------|------------|-------------------|--------------|--|-----|------|----------------------------|-----|
|               |            |                   |              | 外形／Form  | L   | W    |                            |     |
| 1/16W         | 1005       | ± 5%              | CJ           |  | 1.0 | 0.5  | 0.35                       | 104 |
| 1/16W         | 1608       | ± 5%              | CJ           |  | 1.6 | 0.8  | 0.45                       | 108 |
| 1/10W         | 2125       | ± 5%              | CJ           |  | 2   | 1.25 | 0.45                       | 118 |
| 1/8W          | 3216       | ± 5%              | CJ           |  | 3.2 | 1.6  | 0.55                       | 128 |

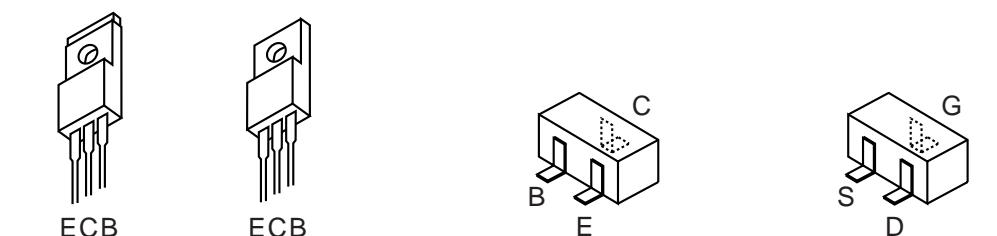


2SJ460  
2SK2541  
DTC114ES  
KTC3199GR

2SC3331  
CSC4115BC

CC5551  
KTA1266  
KTC3198

2SB1436



2SB1342  
2SB1344  
2SB1370  
2SB1370E  
2SD1933  
2SD2025  
2SK3053

2SA1329Y

2SA1362GR

2SA1586GR

2SC2714

2SC3052F

2SC4116GR

2SK2158

RT1N141C

CD1585BC

RT1N144C

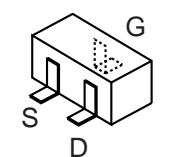
CMBT5401

RT1N441C

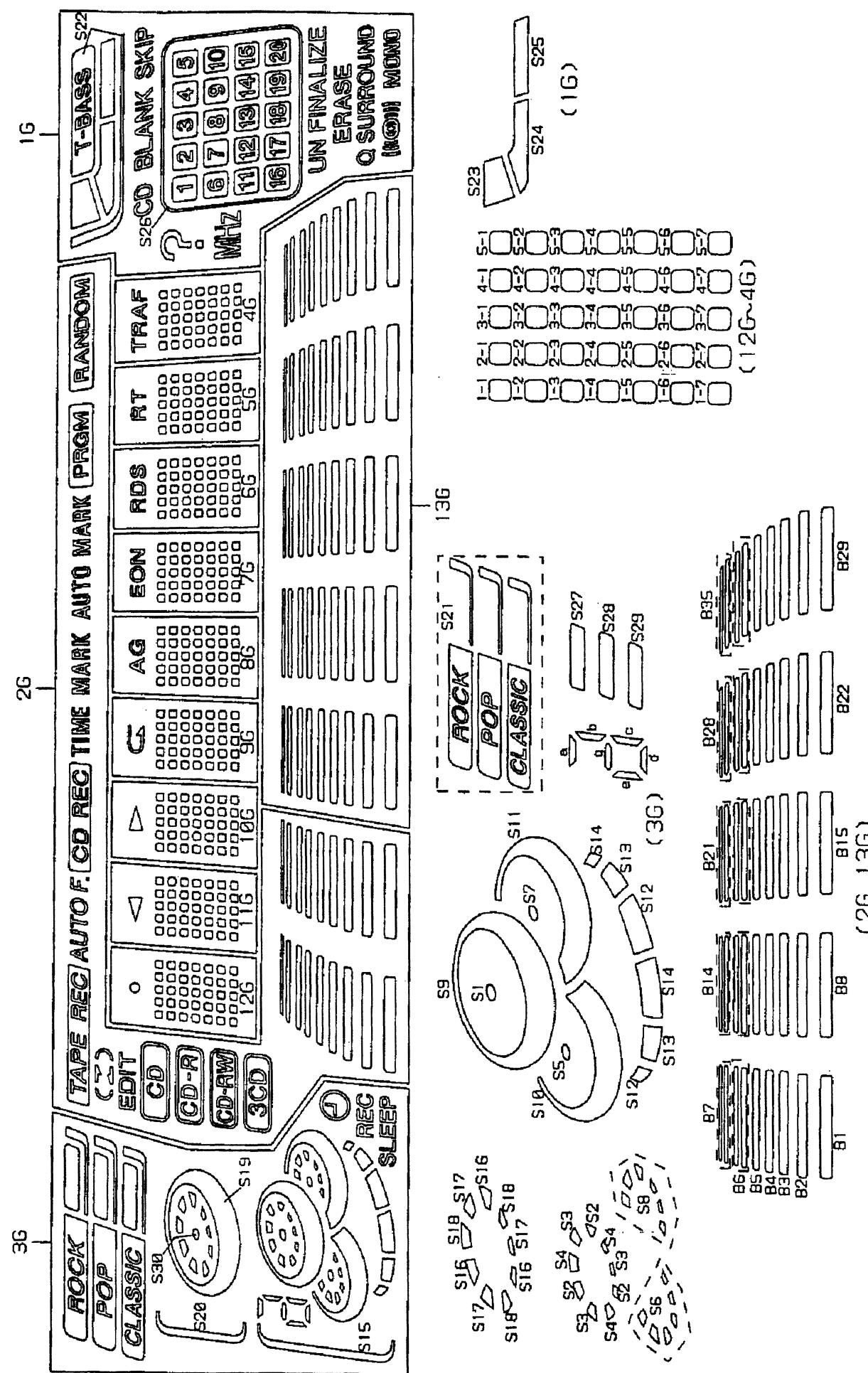
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RT1P144C

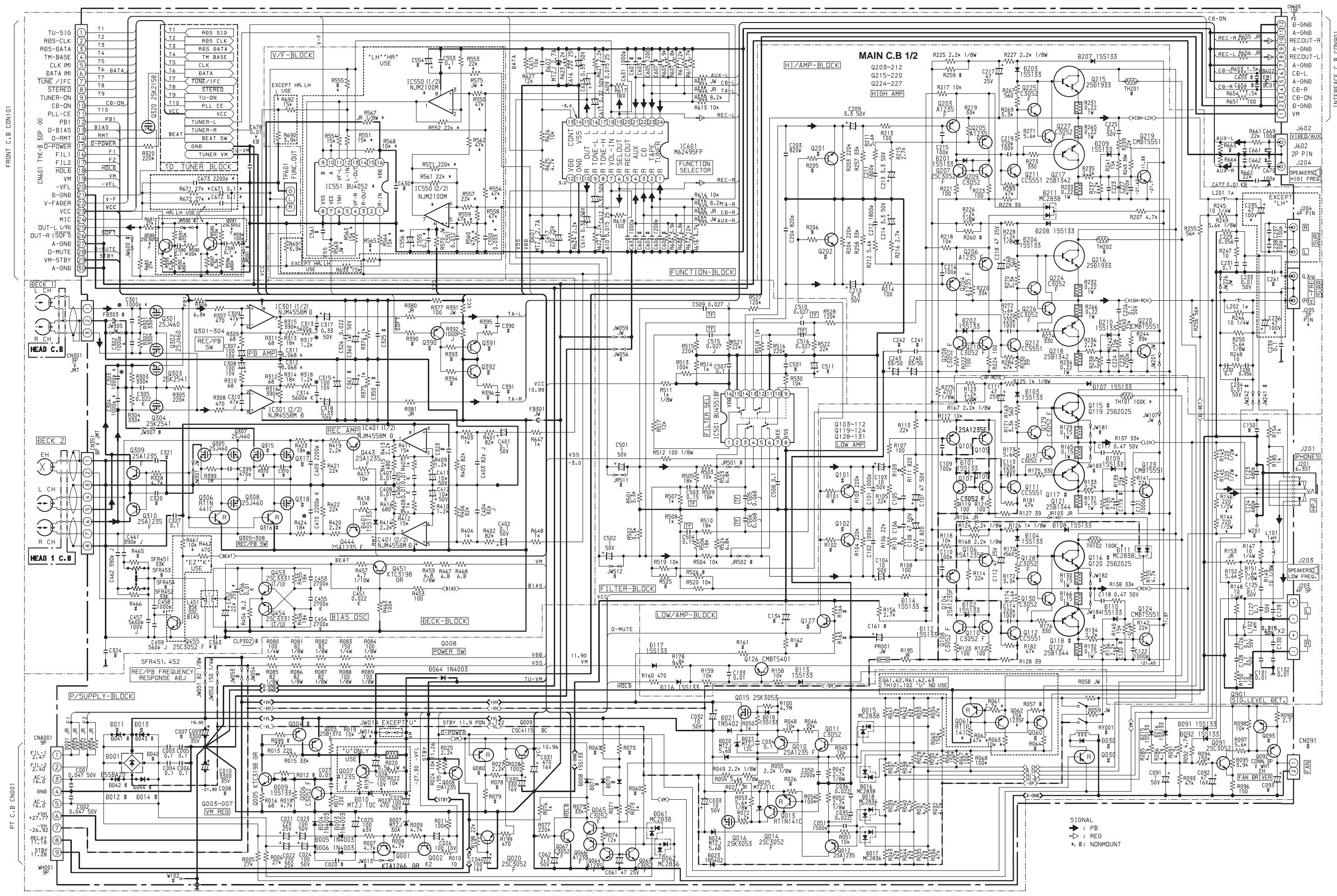


2SJ106GR

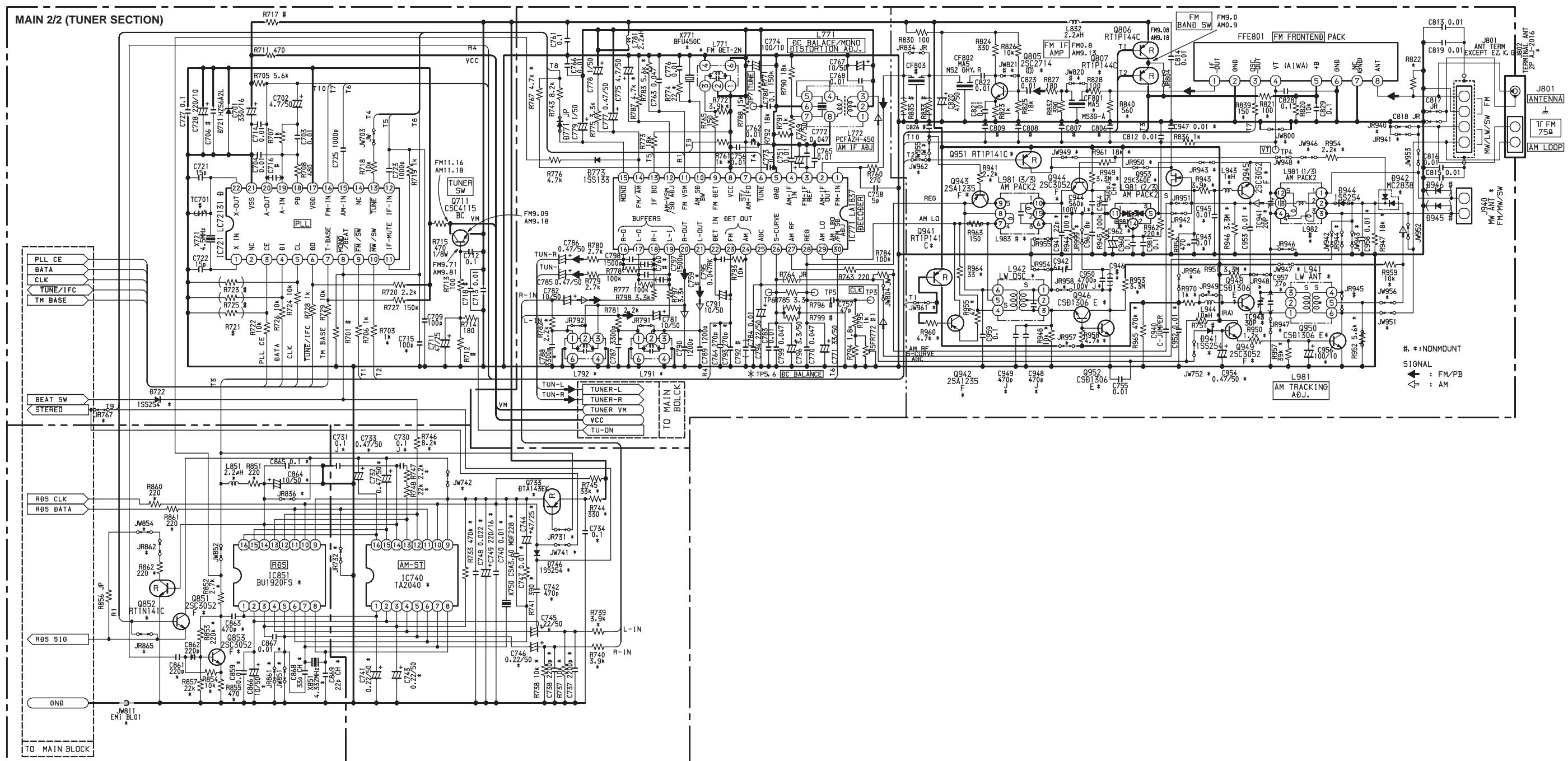


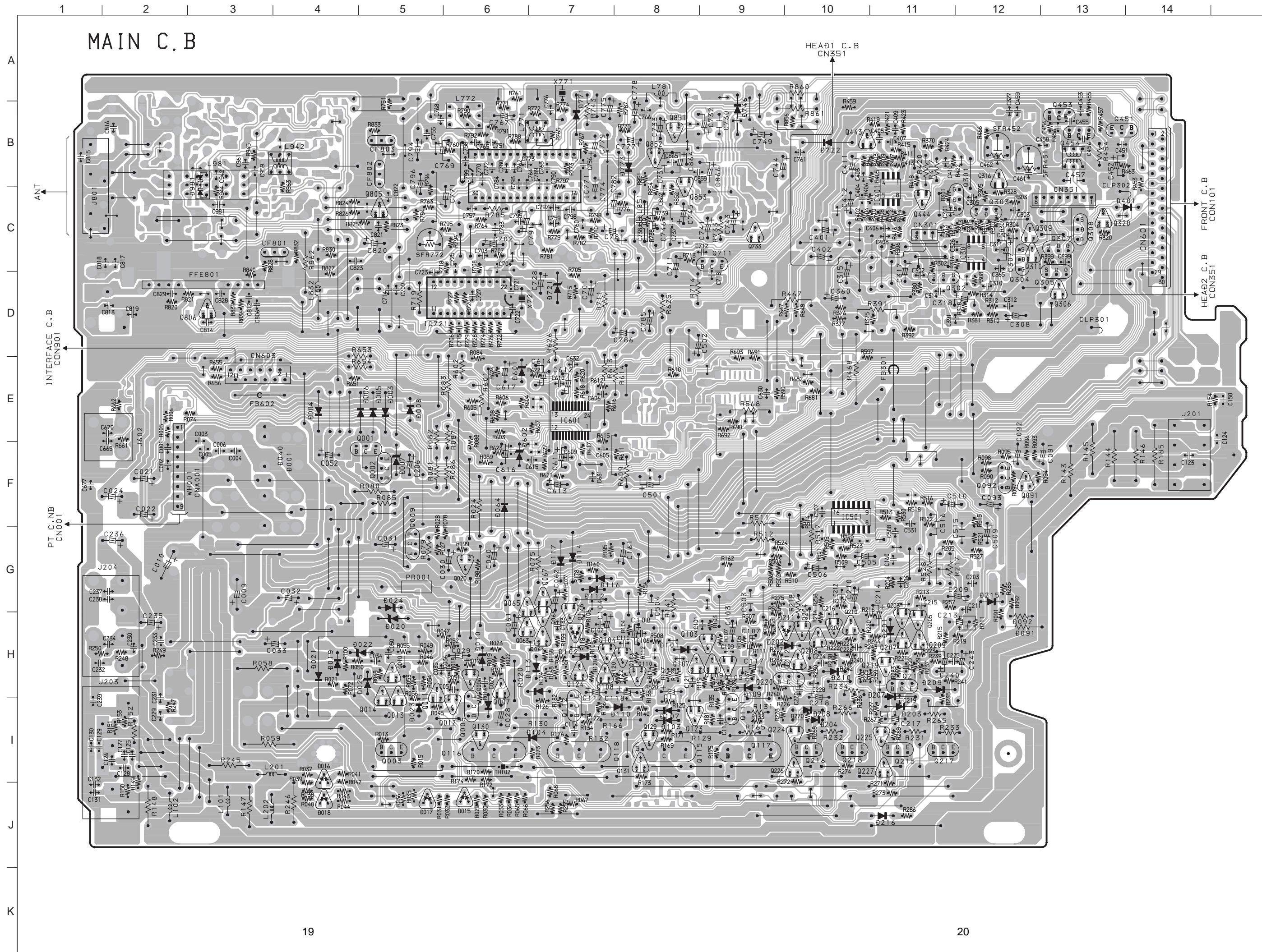
|     | 13G | 12G | 11G | 10G | 9G  | 8G  | 7G  | 6G  | 5G  | 4G    | 3G    | 2G        | 1G            |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----------|---------------|
| P1  | B1  | ○   | ◀   | ▶   | G   | AG  | EON | RDS | RT  | TRAFF | SLEEP | B1        | S22           |
| P2  | B8  | 1-1 | 1-1 | 1-1 | 1-1 | 1-1 | 1-1 | 1-1 | 1-1 | 1-1   | REC   | B8        | S23           |
| P3  | B15 | 2-1 | 2-1 | 2-1 | 2-1 | 2-1 | 2-1 | 2-1 | 2-1 | 2-1   | 1     | B2        | S24           |
| P4  | B22 | 3-1 | 3-1 | 3-1 | 3-1 | 3-1 | 3-1 | 3-1 | 3-1 | 3-1   | S14   | B9        | S25           |
| P5  | B29 | 4-1 | 4-1 | 4-1 | 4-1 | 4-1 | 4-1 | 4-1 | 4-1 | 4-1   | S13   | B3        | CD BLANK SKIP |
| P6  | B2  | 5-1 | 5-1 | 5-1 | 5-1 | 5-1 | 5-1 | 5-1 | 5-1 | 5-1   | S12   | B10       | ?             |
| P7  | B9  | 1-2 | 1-2 | 1-2 | 1-2 | 1-2 | 1-2 | 1-2 | 1-2 | 1-2   | S11   | B4        | MHZ           |
| P8  | B16 | 2-2 | 2-2 | 2-2 | 2-2 | 2-2 | 2-2 | 2-2 | 2-2 | 2-2   | S10   | B11       | S26           |
| P9  | B23 | 3-2 | 3-2 | 3-2 | 3-2 | 3-2 | 3-2 | 3-2 | 3-2 | 3-2   | S9    | B5        | 1             |
| P10 | B30 | 4-2 | 4-2 | 4-2 | 4-2 | 4-2 | 4-2 | 4-2 | 4-2 | 4-2   | S8    | B12       | 2             |
| P11 | B3  | 5-2 | 5-2 | 5-2 | 5-2 | 5-2 | 5-2 | 5-2 | 5-2 | 5-2   | S7    | B6        | 3             |
| P12 | B10 | 1-3 | 1-3 | 1-3 | 1-3 | 1-3 | 1-3 | 1-3 | 1-3 | 1-3   | S6    | B13       | 4             |
| P13 | B17 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3   | S5    | B7        | 5             |
| P14 | B24 | 3-3 | 3-3 | 3-3 | 3-3 | 3-3 | 3-3 | 3-3 | 3-3 | 3-3   | S4    | B14       | 6             |
| P15 | B31 | 4-3 | 4-3 | 4-3 | 4-3 | 4-3 | 4-3 | 4-3 | 4-3 | 4-3   | S3    | -         | 7             |
| P16 | B4  | 5-3 | 5-3 | 5-3 | 5-3 | 5-3 | 5-3 | 5-3 | 5-3 | 5-3   | S2    | -         | 8             |
| P17 | B11 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4 | 1-4   | S1    | RANDOM    | 9             |
| P18 | B18 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4   | d     | PRGM      | 10            |
| P19 | B25 | 3-4 | 3-4 | 3-4 | 3-4 | 3-4 | 3-4 | 3-4 | 3-4 | 3-4   | e     | AUTO MARK | 11            |
| P20 | B32 | 4-4 | 4-4 | 4-4 | 4-4 | 4-4 | 4-4 | 4-4 | 4-4 | 4-4   | c     | TIME MARK | 12            |
| P21 | B5  | 5-4 | 5-4 | 5-4 | 5-4 | 5-4 | 5-4 | 5-4 | 5-4 | 5-4   | g     | CD REC    | 13            |
| P22 | B12 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5 | 1-5   | b     | AUTO F.   | 14            |
| P23 | B19 | 2-5 | 2-5 | 2-5 | 2-5 | 2-5 | 2-5 | 2-5 | 2-5 | 2-5   | a     | TAPE REC  | 15            |
| P24 | B26 | 3-5 | 3-5 | 3-5 | 3-5 | 3-5 | 3-5 | 3-5 | 3-5 | 3-5   | S15   | )         | 16            |
| P25 | B33 | 4-5 | 4-5 | 4-5 | 4-5 | 4-5 | 4-5 | 4-5 | 4-5 | 4-5   | S20   | C         | 17            |
| P26 | B6  | 5-5 | 5-5 | 5-5 | 5-5 | 5-5 | 5-5 | 5-5 | 5-5 | 5-5   | S19   | —         | 18            |
| P27 | B13 | 1-6 | 1-6 | 1-6 | 1-6 | 1-6 | 1-6 | 1-6 | 1-6 | 1-6   | S18   | EDIT      | 19            |
| P28 | B20 | 2-6 | 2-6 | 2-6 | 2-6 | 2-6 | 2-6 | 2-6 | 2-6 | 2-6   | S17   | CD        | 20            |
| P29 | B27 | 3-6 | 3-6 | 3-6 | 3-6 | 3-6 | 3-6 | 3-6 | 3-6 | 3-6   | S16   | CD-R      | UN            |
| P30 | B34 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6   | S21   | CD-RW     | FINALIZE      |
| P31 | B7  | 5-6 | 5-6 | 5-6 | 5-6 | 5-6 | 5-6 | 5-6 | 5-6 | 5-6   | S27   | 3CD       | ERASE         |
| P32 | B14 | 1-7 | 1-7 | 1-7 | 1-7 | 1-7 | 1-7 | 1-7 | 1-7 | 1-7   | S28   | -         | Q SURROUND    |
| P33 | B21 | 2-7 | 2-7 | 2-7 | 2-7 | 2-7 | 2-7 | 2-7 | 2-7 | 2-7   | S29   | -         | ((@))         |
| P34 | B28 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7   | S30   | -         | MONO          |
| P35 | B35 | 4-7 | 4-7 | 4-7 | 4-7 | 4-7 | 4-7 | 4-7 | 4-7 | 4-7   | -     | -         | -             |
| P36 | -   | 5-7 | 5-7 | 5-7 | 5-7 | 5-7 | 5-7 | 5-7 | 5-7 | 5-7   | -     | -         | -             |

# SCHEMATIC DIAGRAM-1 (MAIN 1/2)

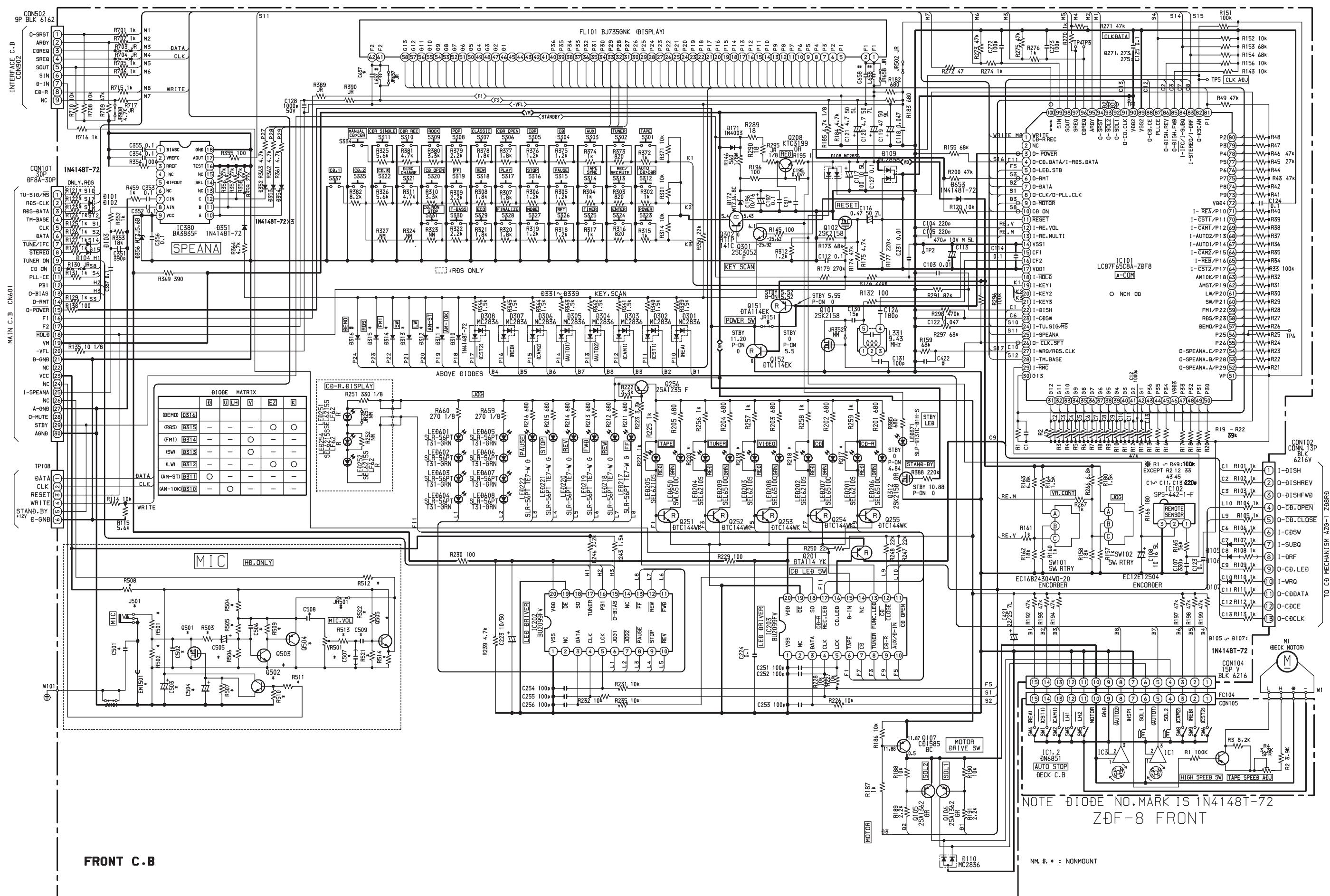


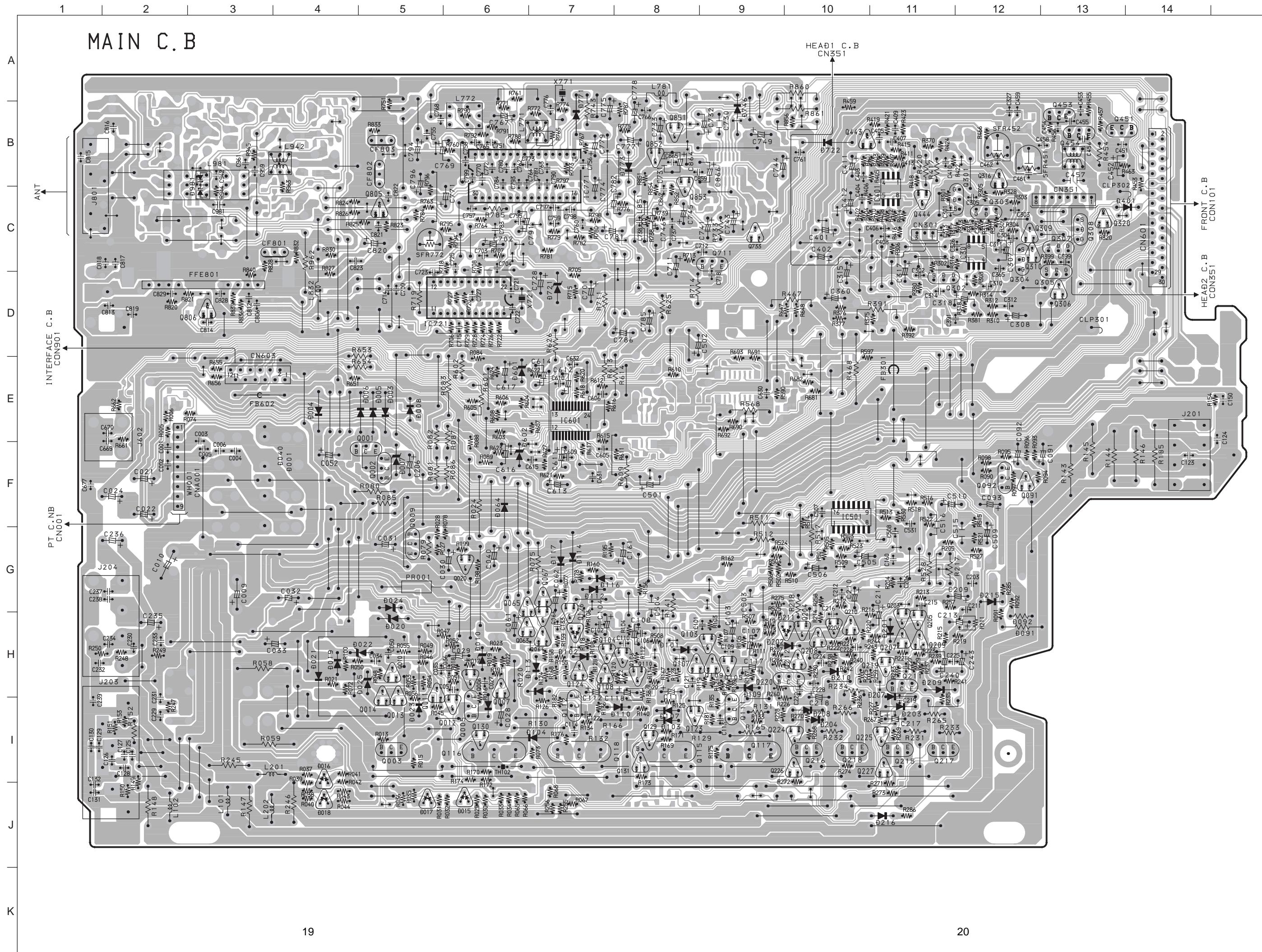
## SCHEMATIC DIAGRAM-2 (MAIN 2/2: TUNER SECTION)



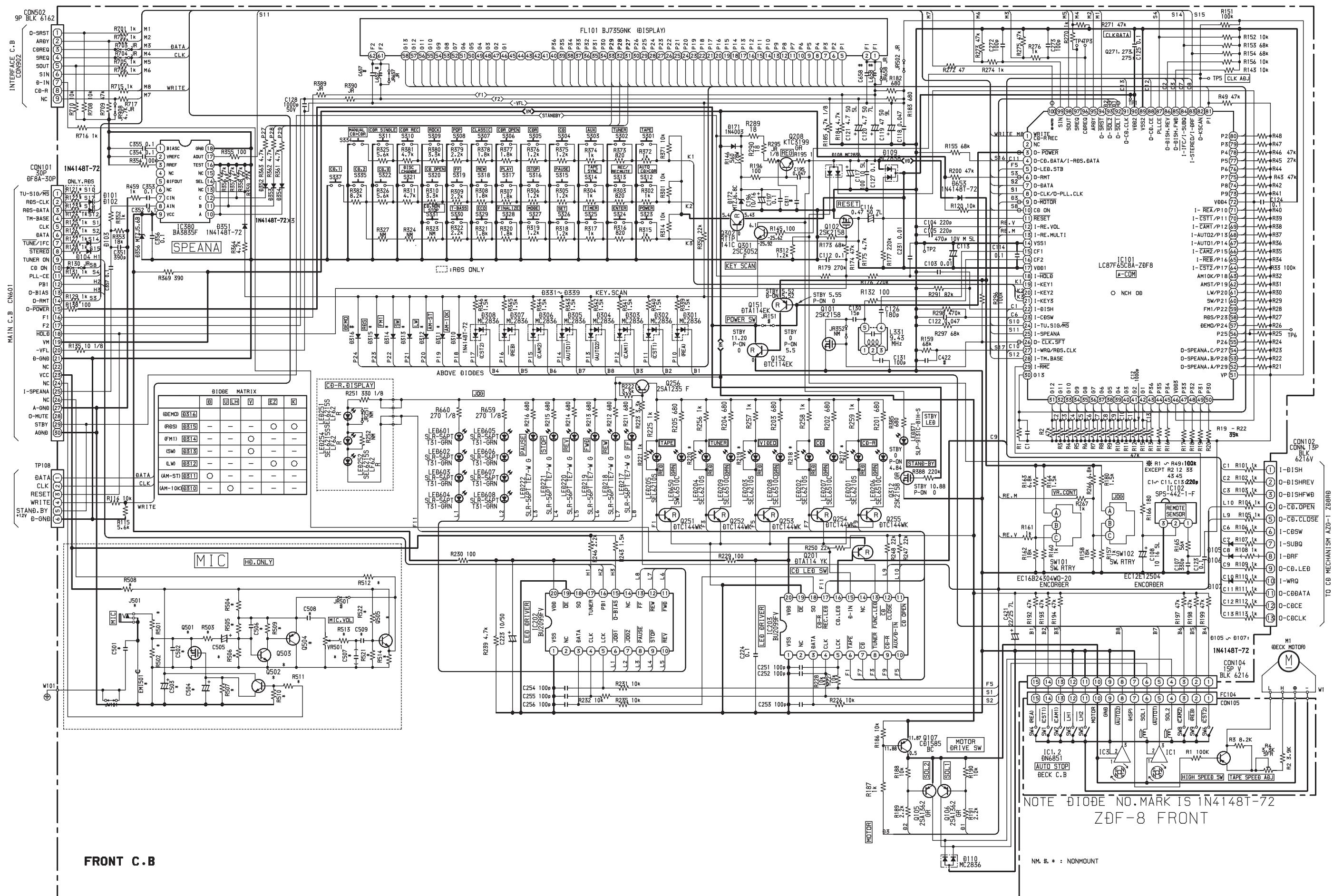


# SCHEMATIC DIAGRAM-3 (FRONT)



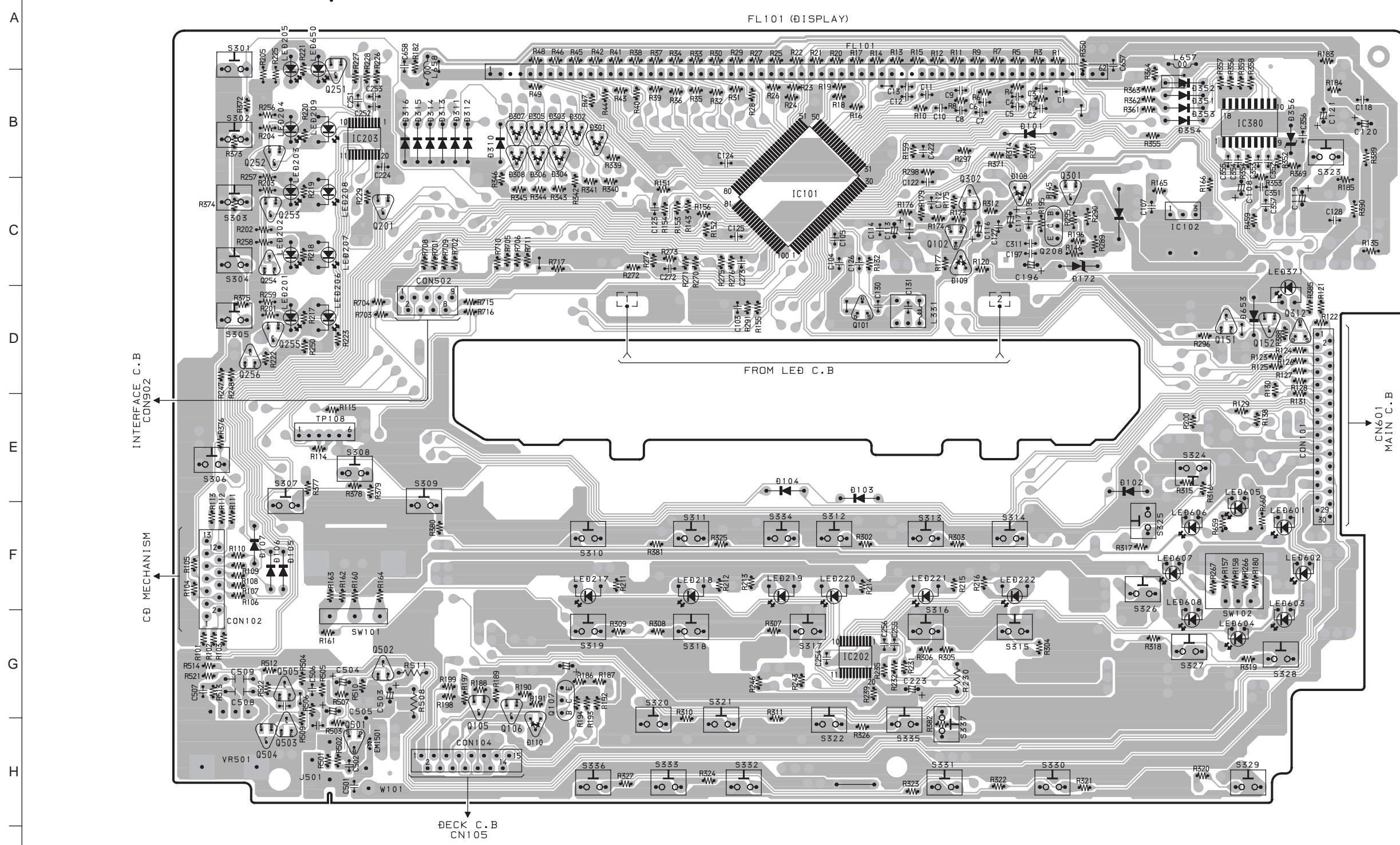


# SCHEMATIC DIAGRAM-3 (FRONT)

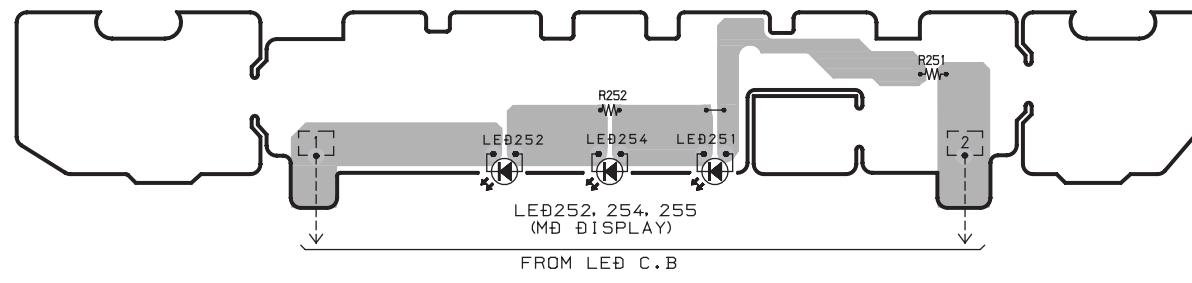


1 2 3 4 5 6 7 8 9 10 11 12 13 14

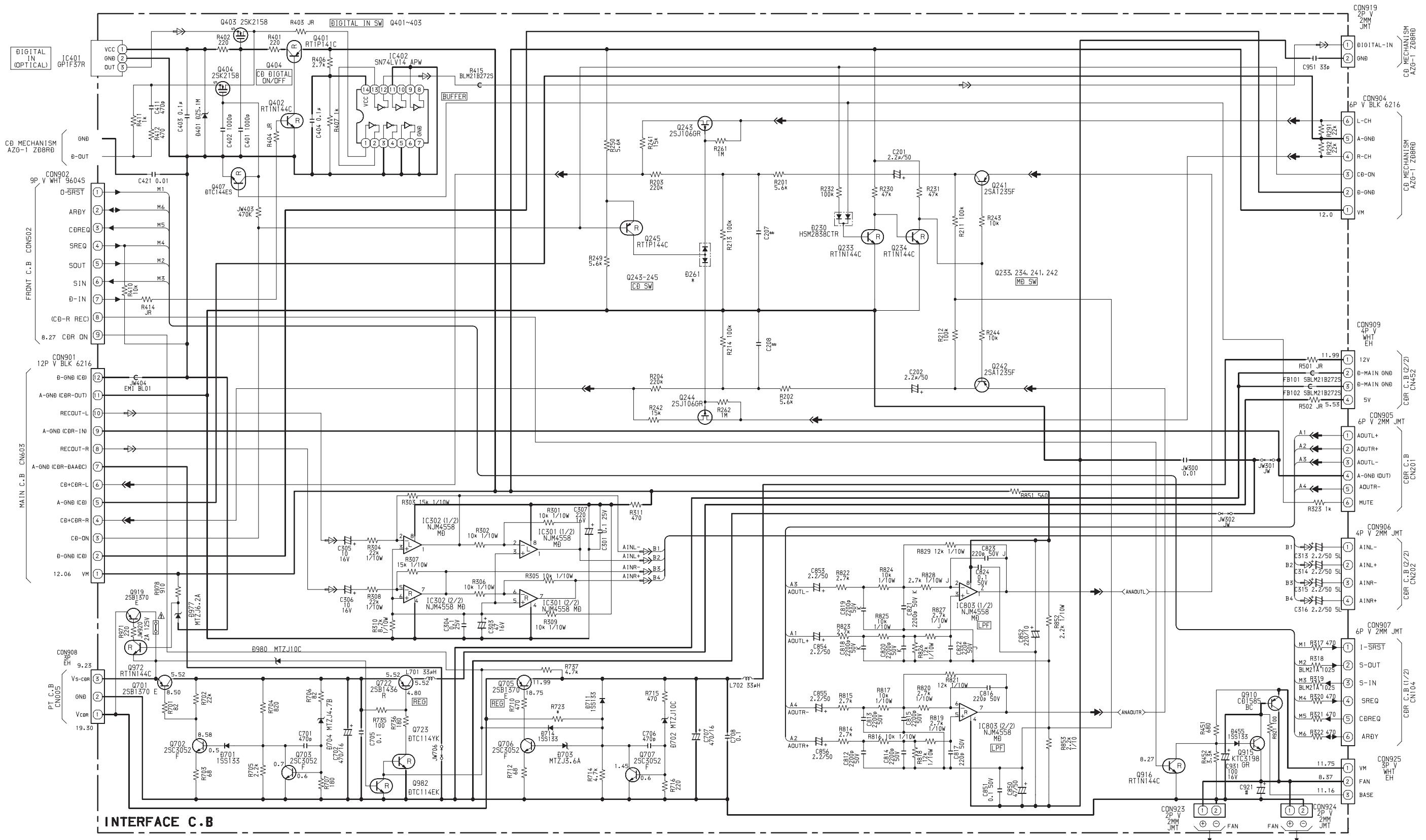
## FRONT C. B



## LED C. B



## SCHEMATIC DIAGRAM-4 (INTERFACE)

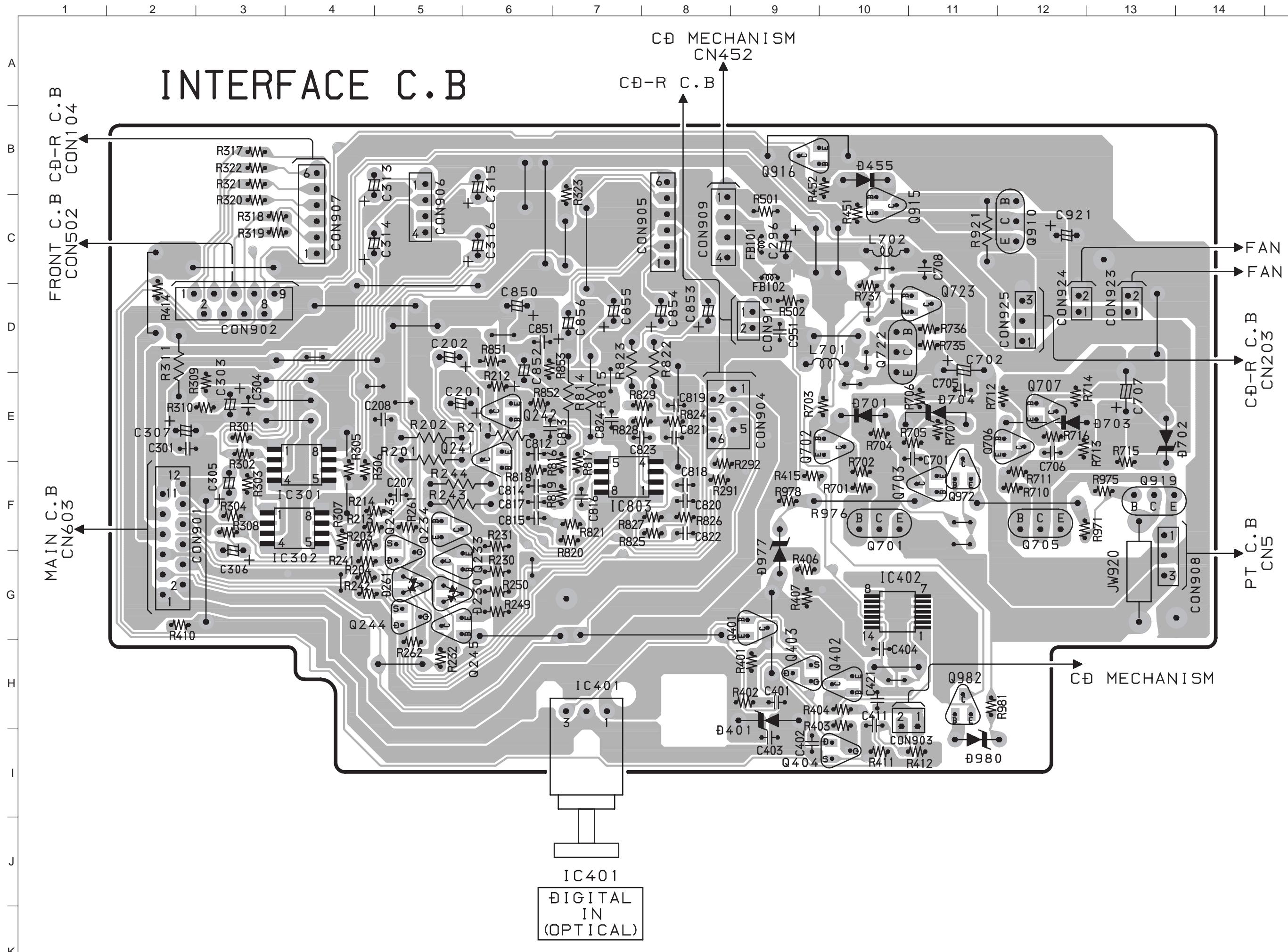


\* , NONMOUNT

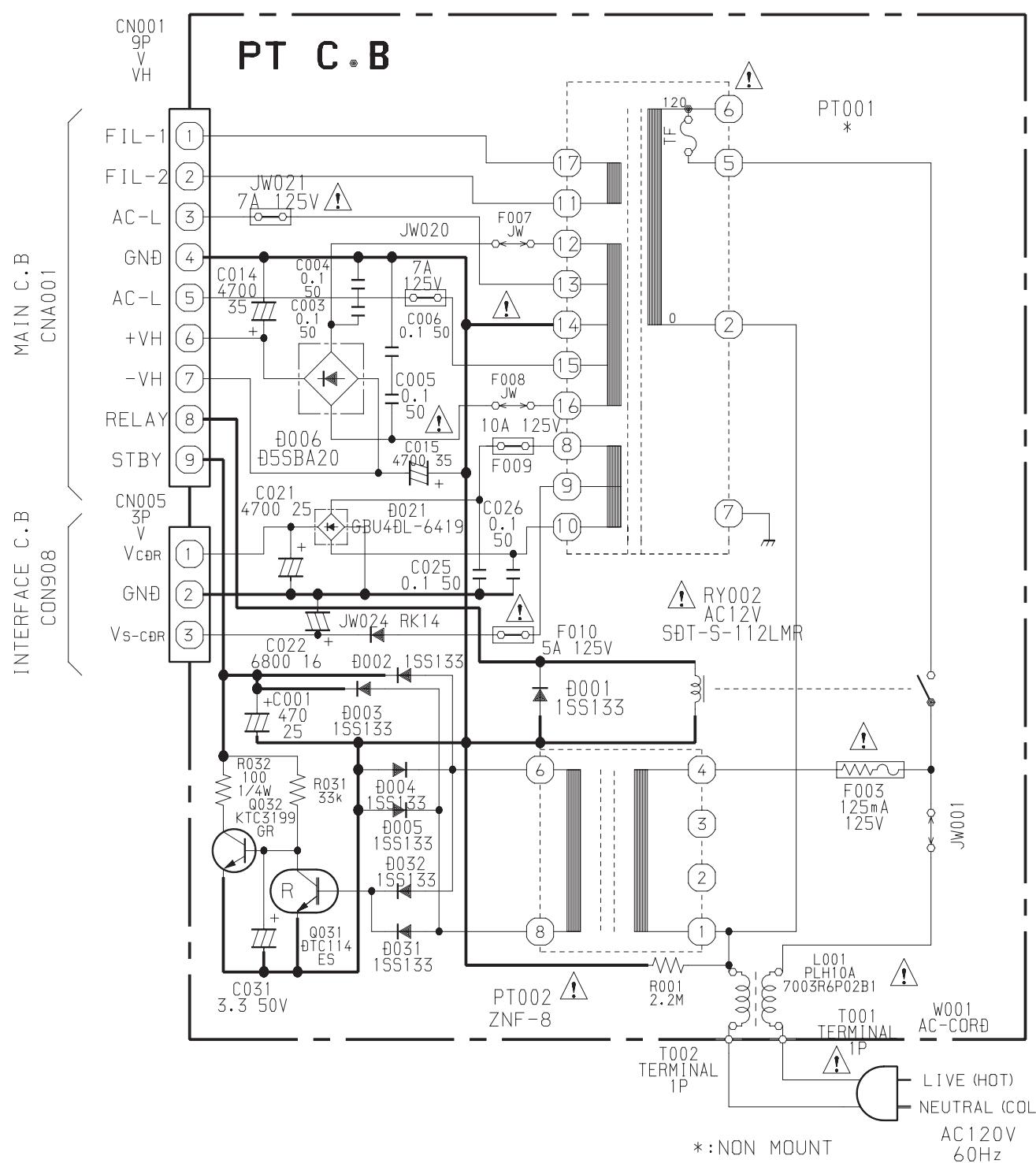
## SIGNAL

→ : PB (DIGITAL)

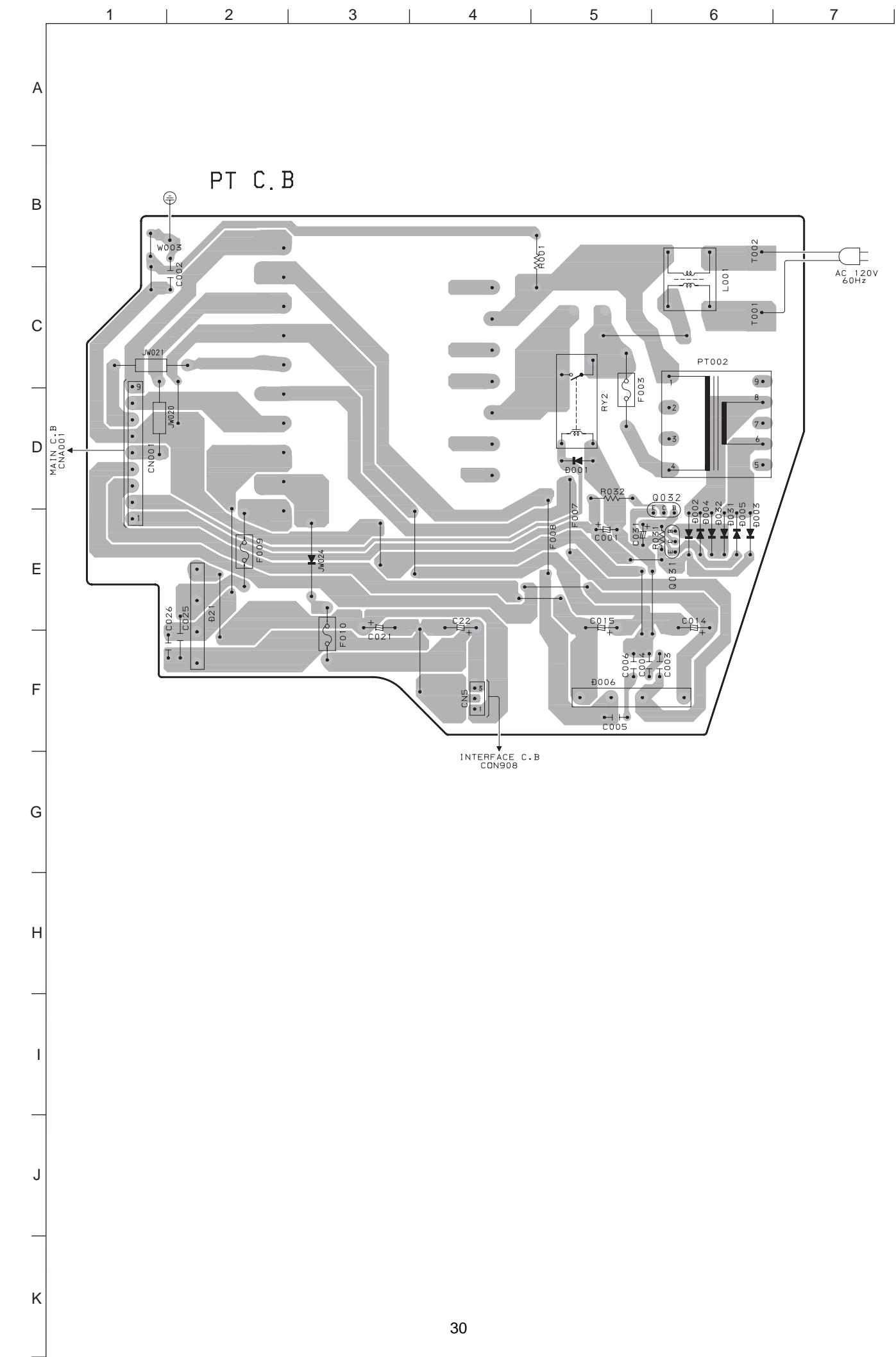
⇒ : REC (DIGITAL)



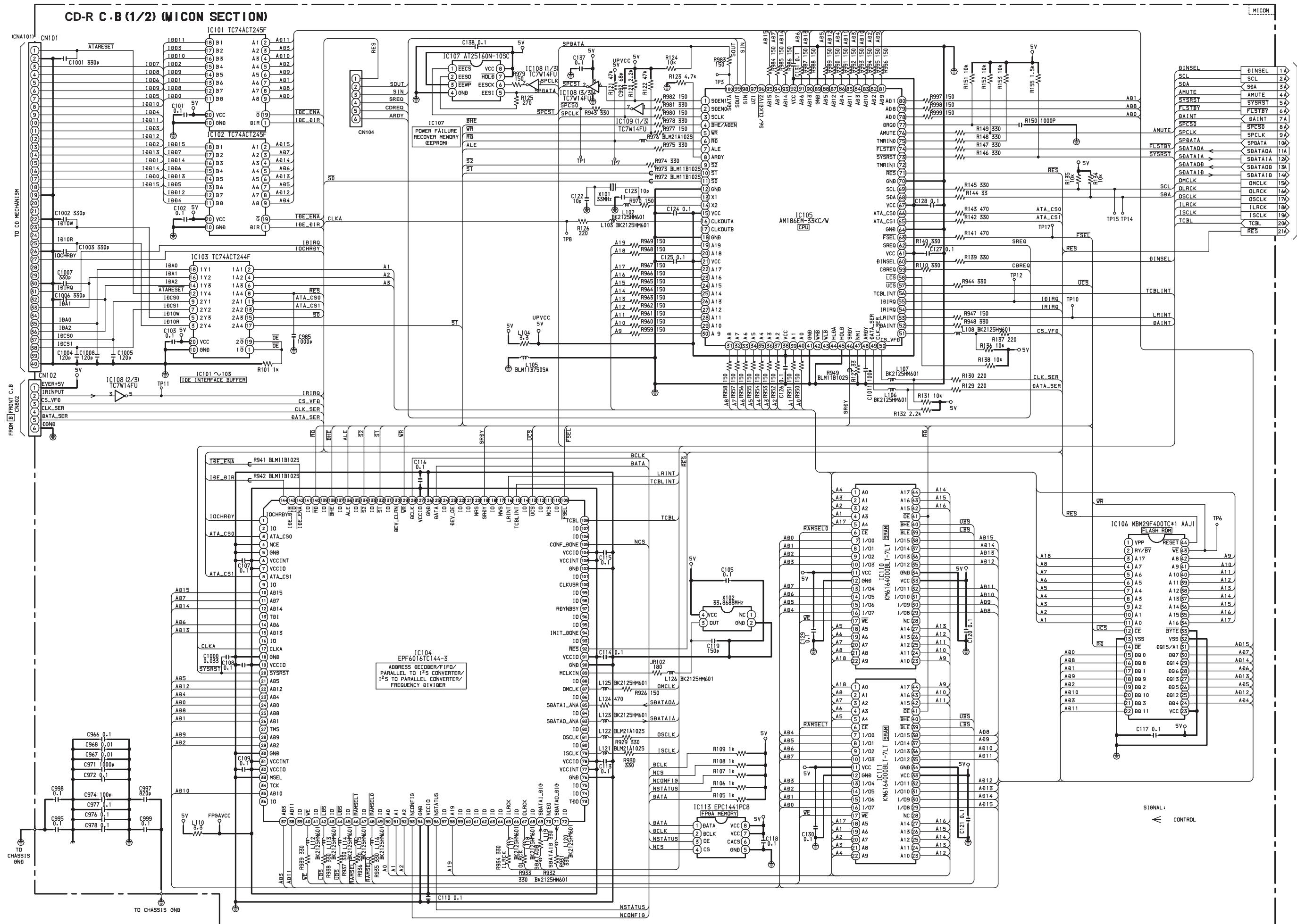
## SCHEMATIC DIAGRAM-5 (PT)



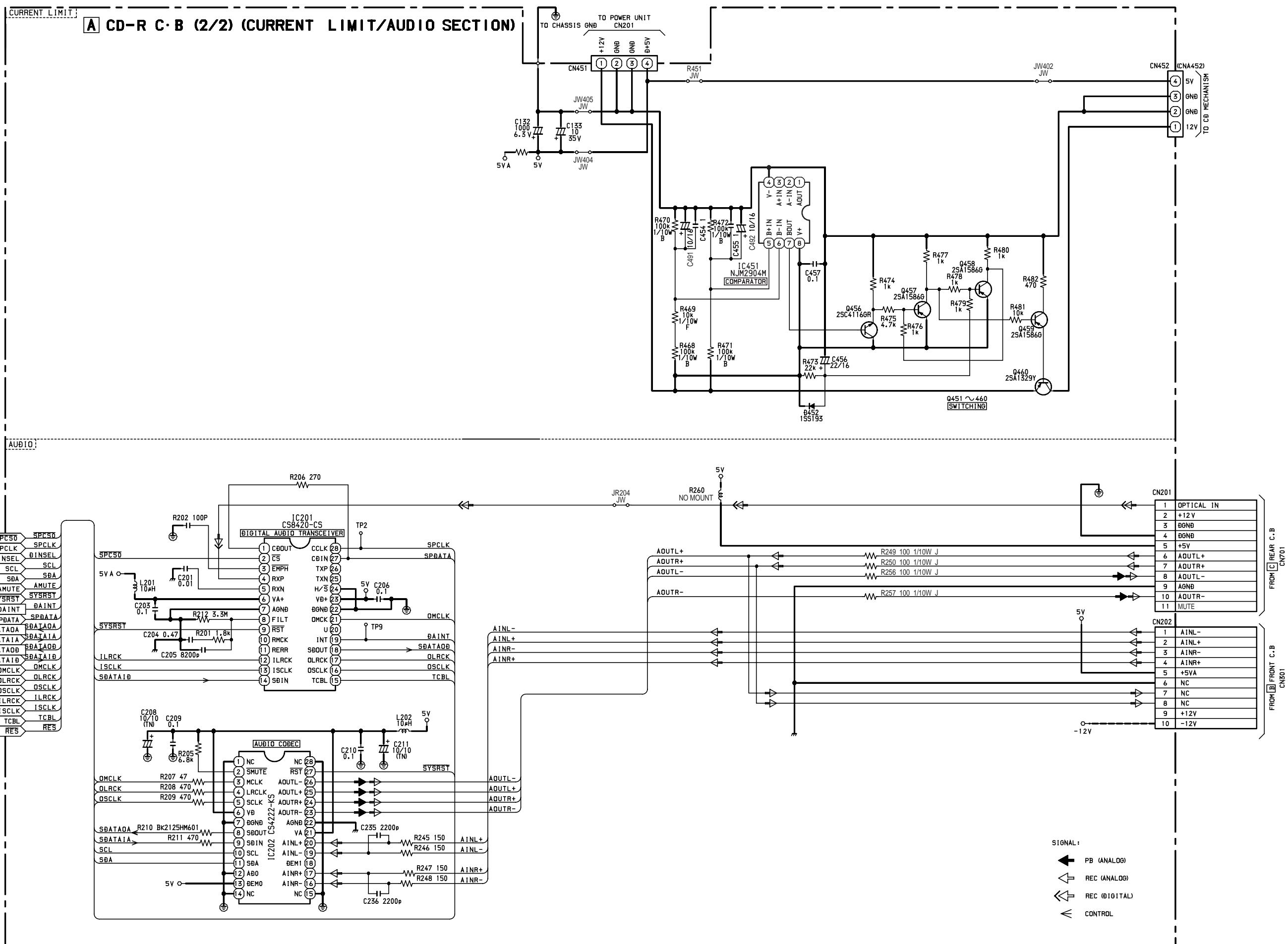
## WIRING-4 (PT)

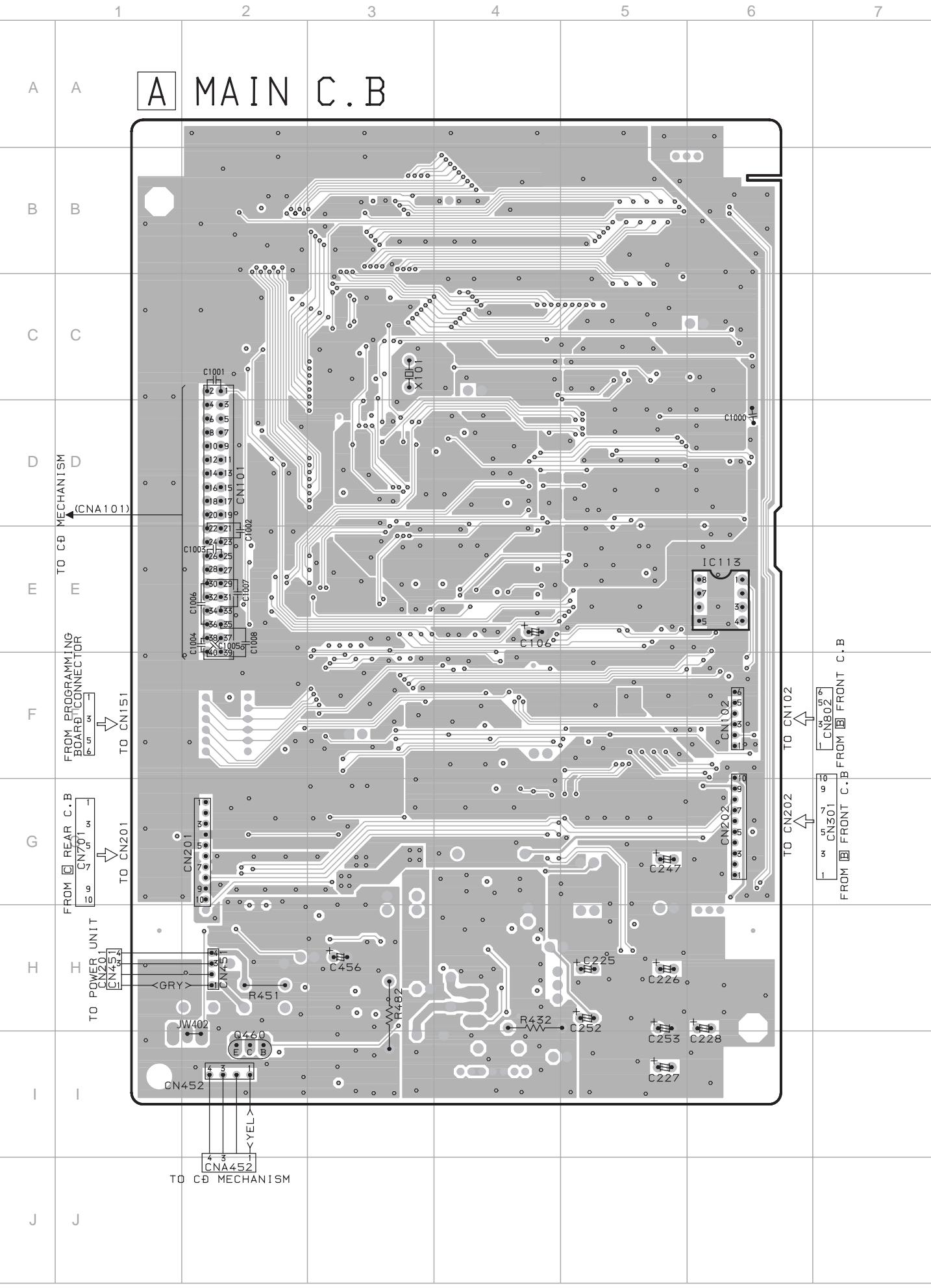
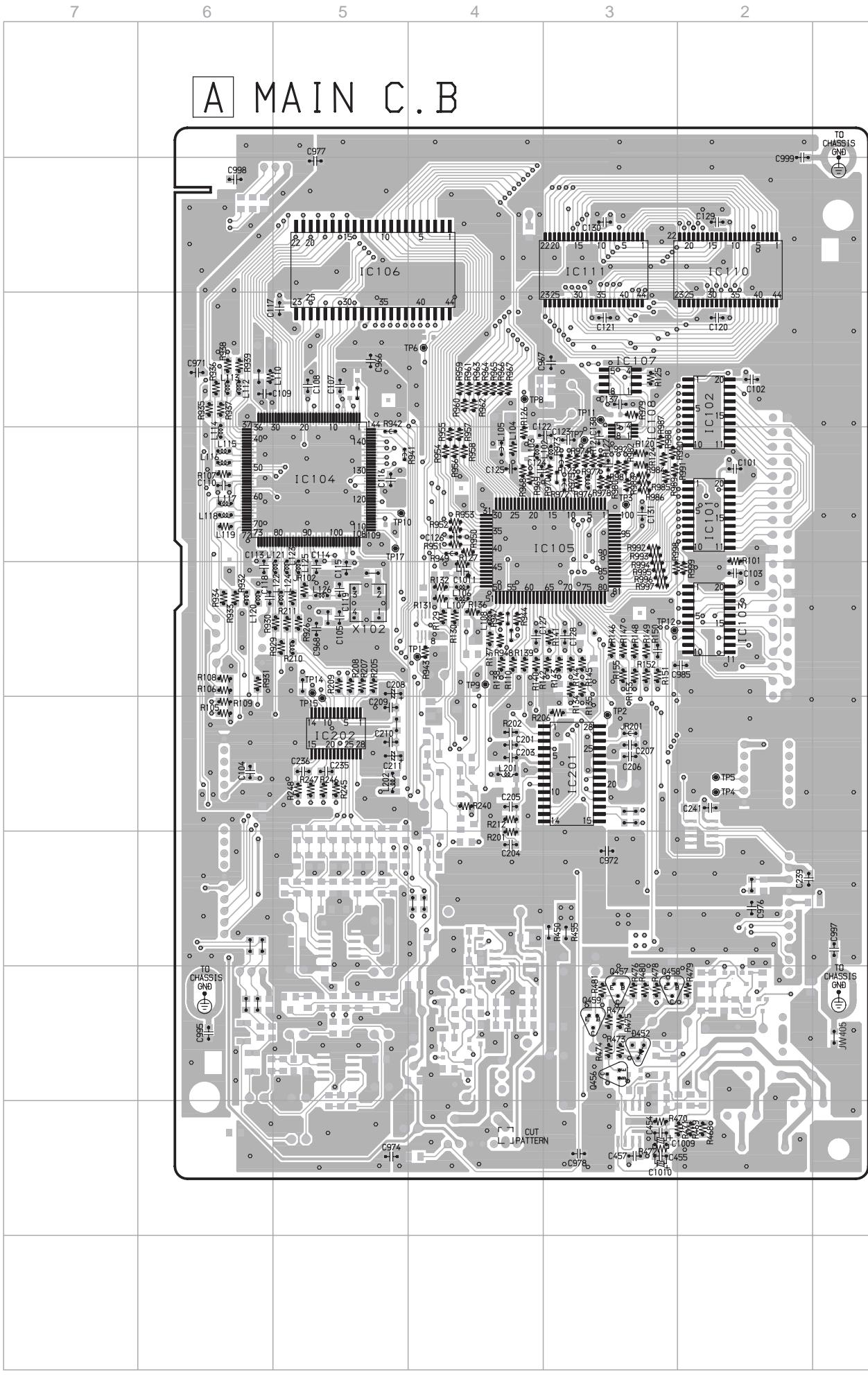


## SCHEMATIC DIAGRAM-6 (CD-R 1/2)



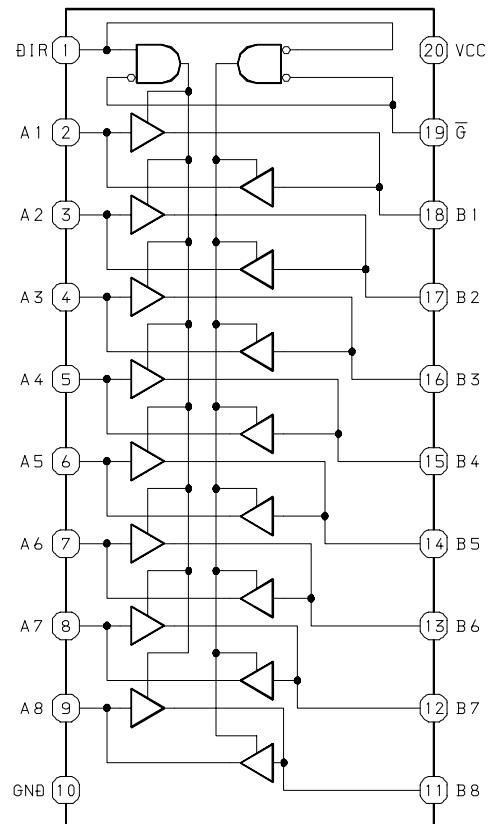
SCHEMATIC DIAGRAM-7 (CD-R 2/2)





## IC BLOCK DIAGRAM

IC, TC74ACT245F

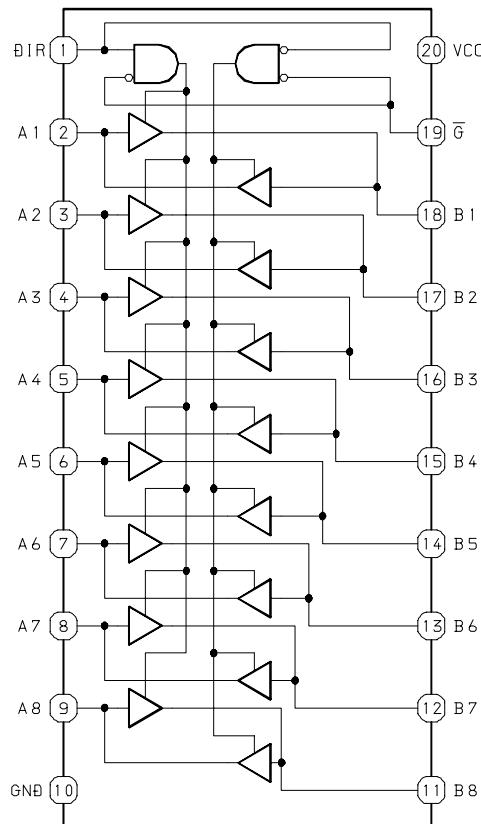


TRUTH TABLE

| INPUTS    |     | FUNCTION       | OUTPUT |
|-----------|-----|----------------|--------|
| $\bar{G}$ | DIR | A-BUS          | B-BUS  |
| L         | L   | OUTPUT         | INPUT  |
| L         | H   | INPUT          | OUTPUT |
| H         | X   | HIGH IMPEDANCE | Z      |

X: DON'T CARE  
Z: HIGH IMPEDANCE

IC, TC74ACT244F

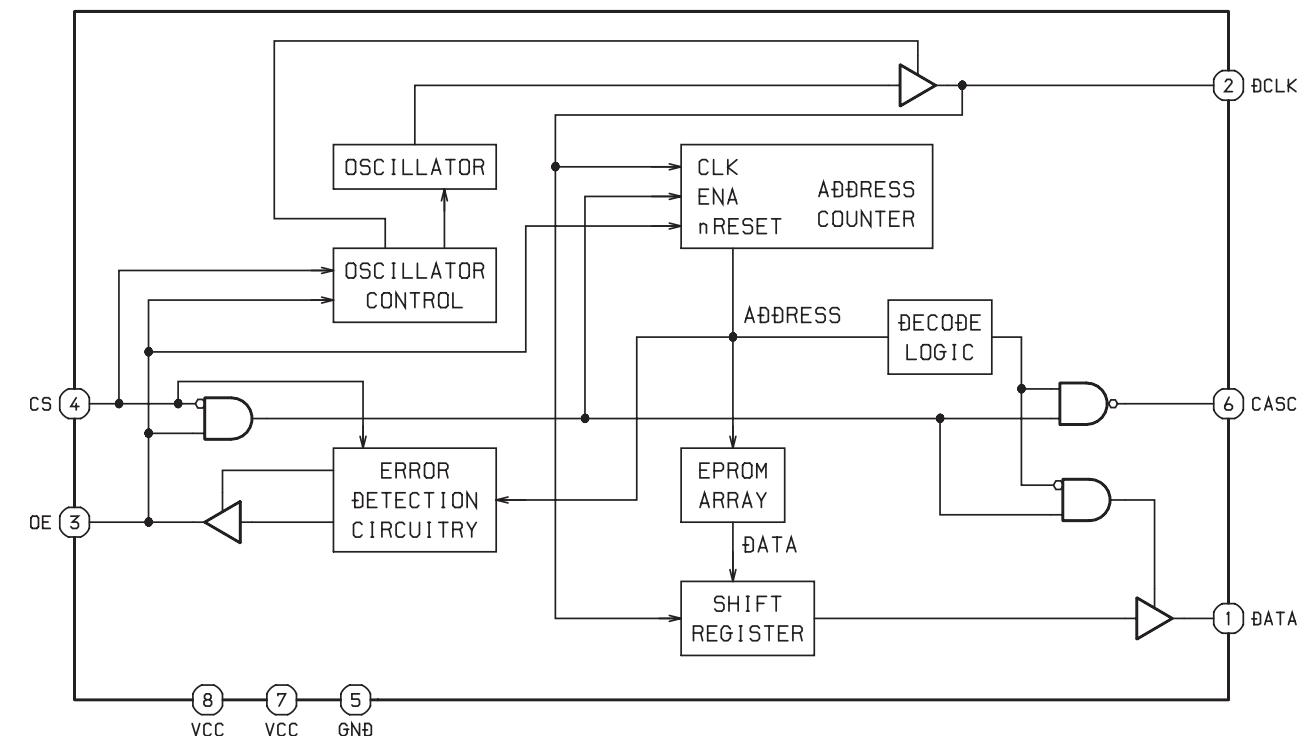


TRUTH TABLE

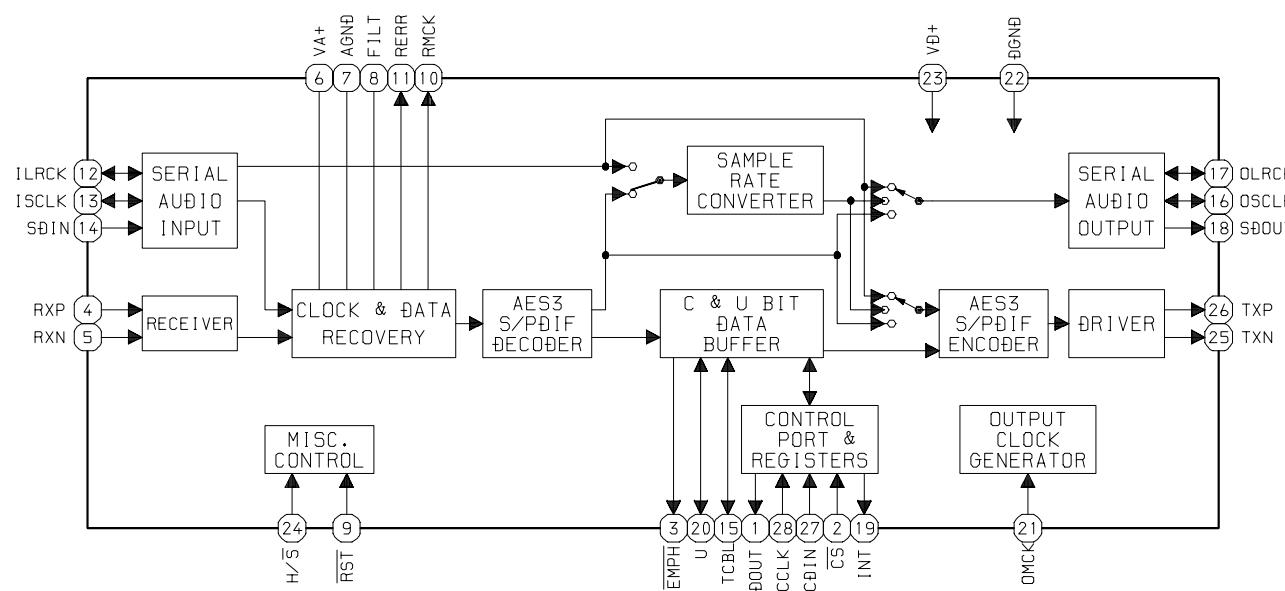
| INPUTS    |     | FUNCTION       | OUTPUT |
|-----------|-----|----------------|--------|
| $\bar{G}$ | DIR | A-BUS          | B-BUS  |
| L         | L   | OUTPUT         | INPUT  |
| L         | H   | INPUT          | OUTPUT |
| H         | X   | HIGH IMPEDANCE | Z      |

X: DON'T CARE  
Z: HIGH IMPEDANCE

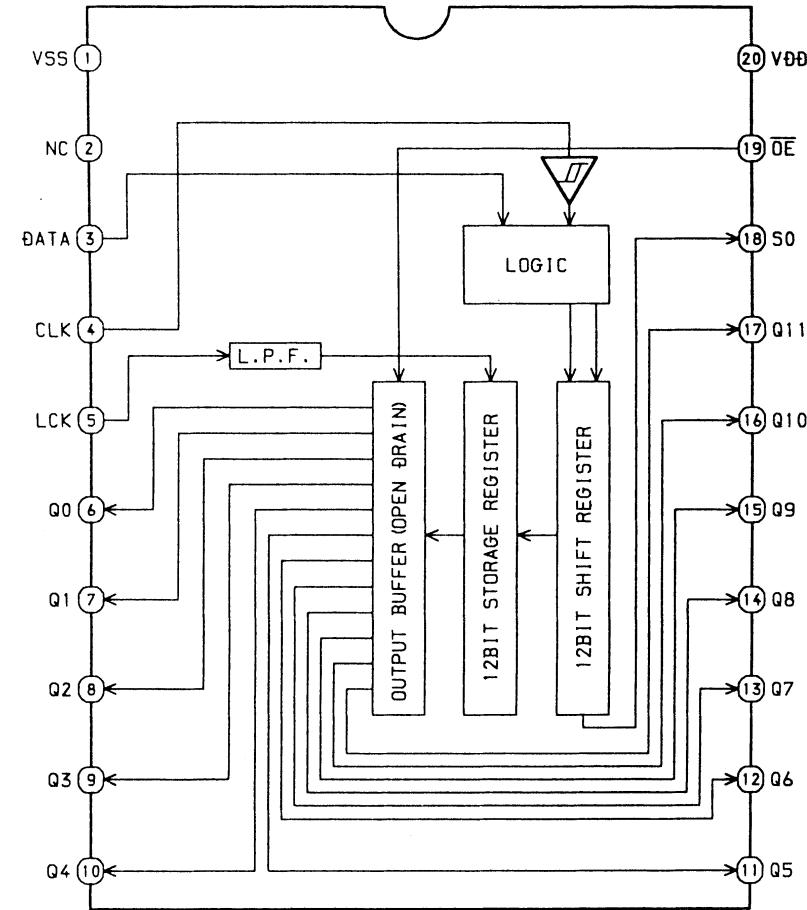
IC, EPC1441PC8



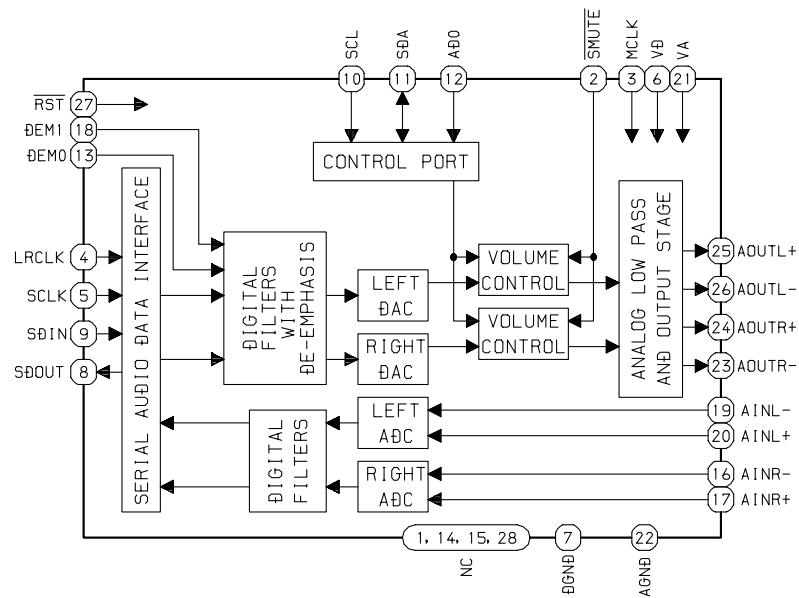
IC, CS8420-CS



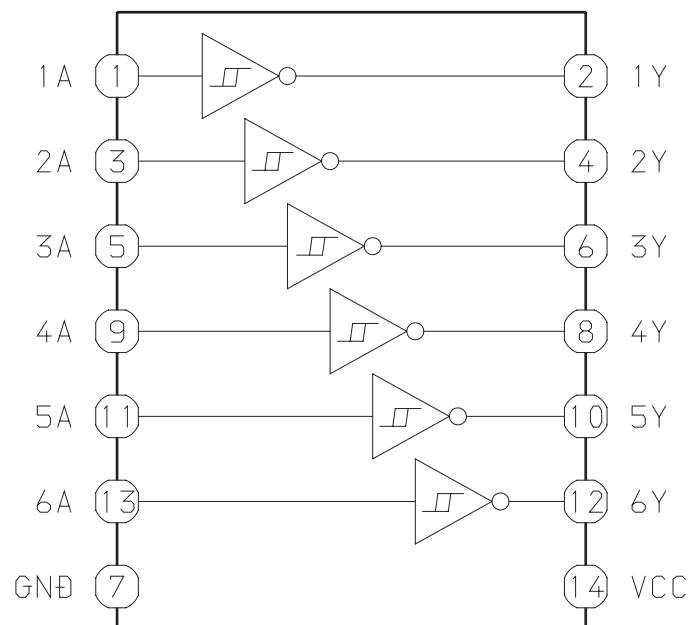
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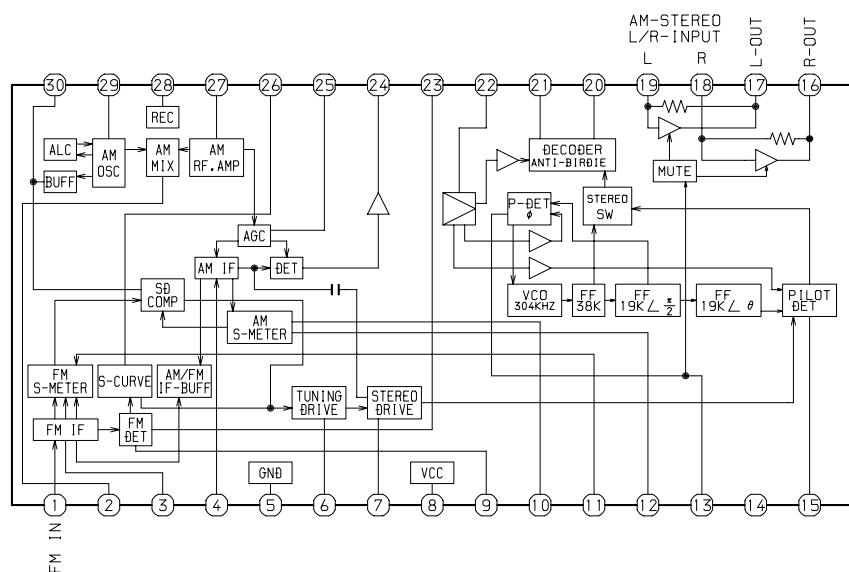
IC, CS-4222-KS



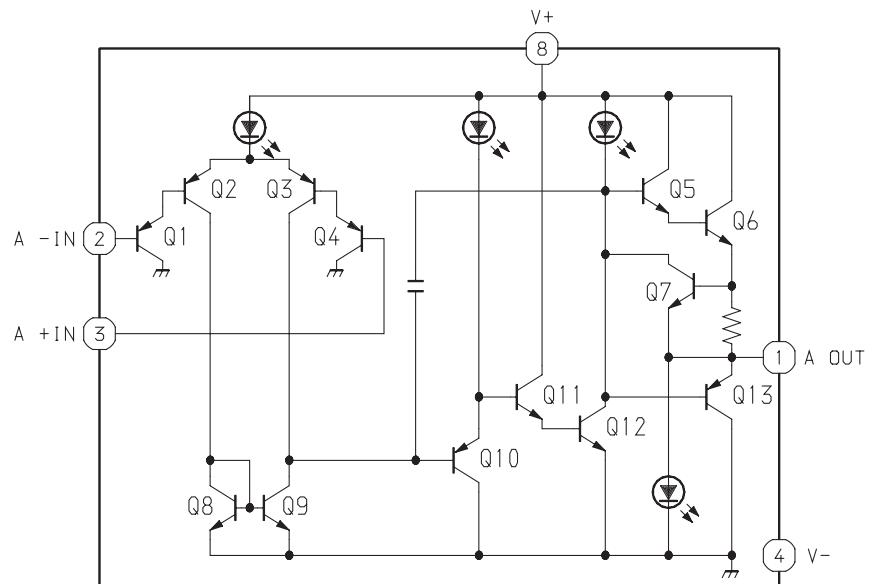
IC, SN74LV14APW



IC, LA1837NL

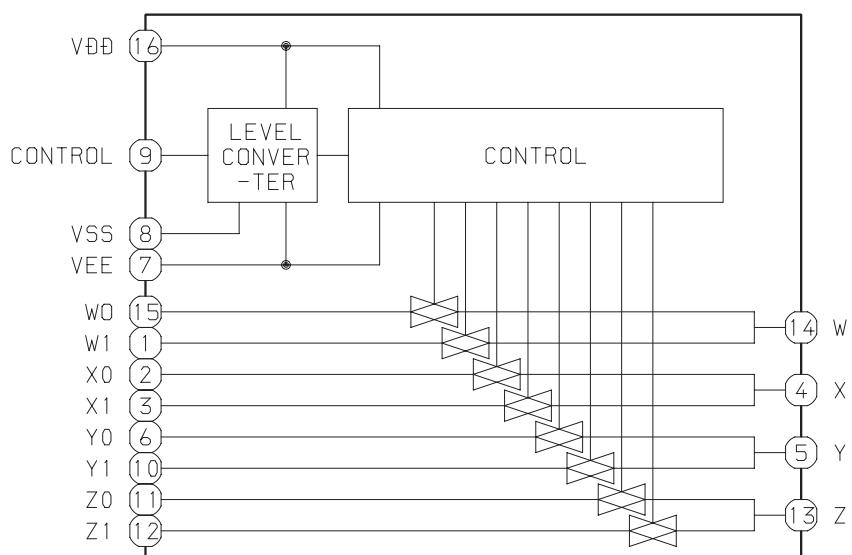


IC, NJM2904M

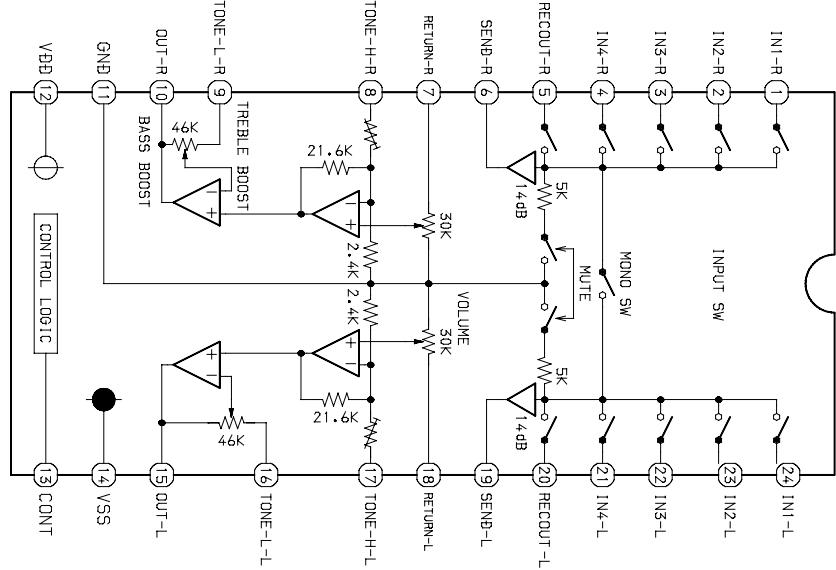


\*NOTE:ONLY CHANNEL A IS SHOWN, CHANNEL B IS SIMILAR TO CHANNEL A.

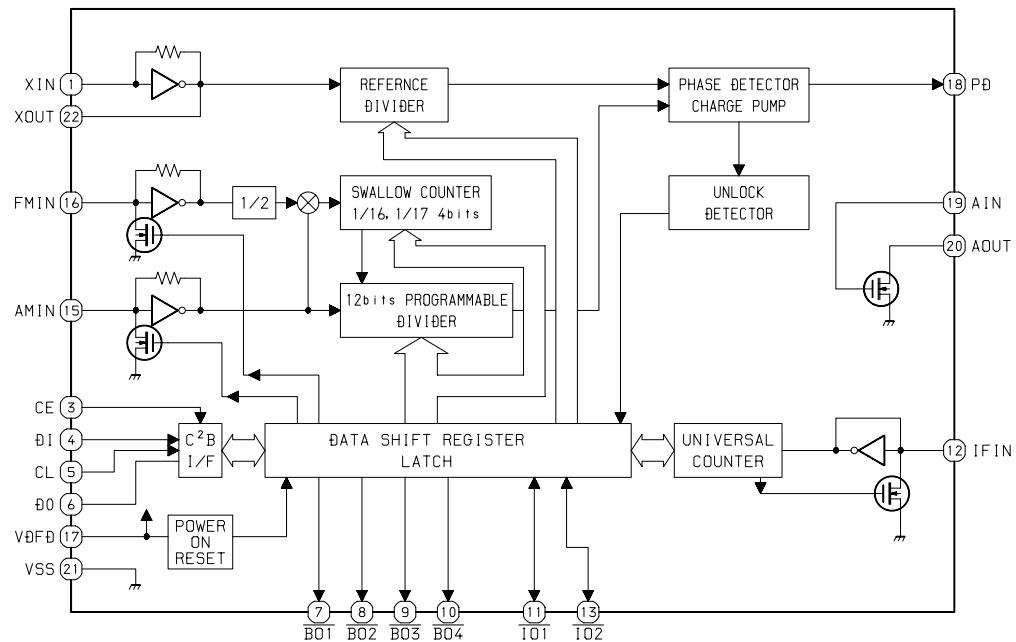
IC, BU4551BF



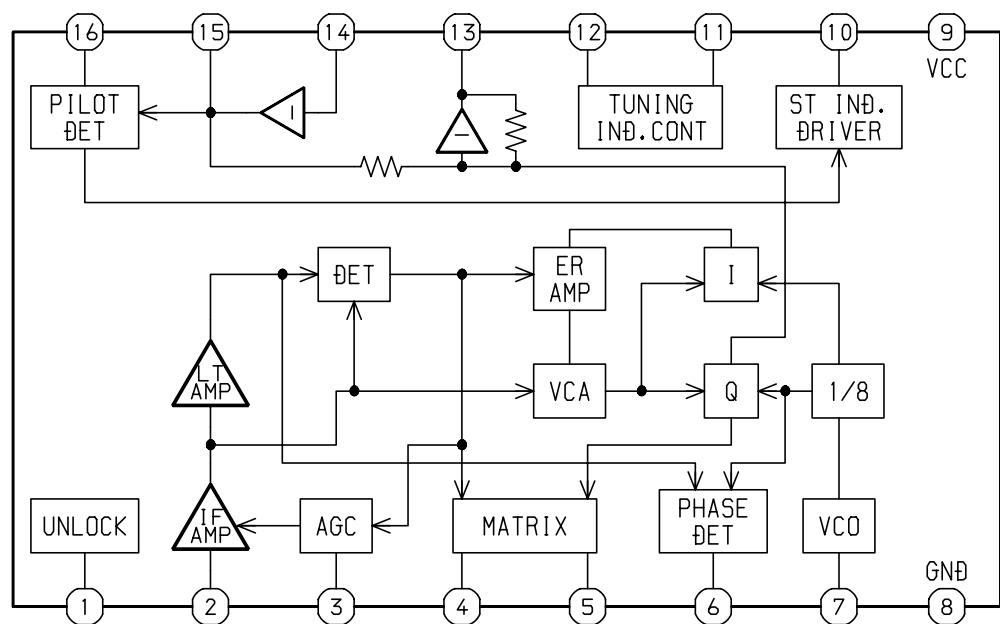
IC, M62495FP



## IC, LC7231D



## IC, TA2040AF



**IC DESCRIPTION**  
**IC, LC87F65C8A-DF8**

| Pin No. | Pin Name                 | I/O | Description   |
|---------|--------------------------|-----|---|
| 1       | WRITE CD-R REC           | I   | Flash MICCM write control input.                                  |
| 2       | NC                       | —   | Not connected.  |
| 3       | O-POWER                  | O   | System power supply ON/OFF output pin.                            |
| 4       | O-CD.DATA/<br>I-RDS.DATA | O/I | CD control data output/RDS data input.                            |
| 5       | O-LED.STB                | O   | Strobe output for shift register IC.                              |
| 6       | O-RMT                    | O   | REC MUTE output.  |
| 7       | O-DATA                   | O   | Function IC (M62445AFP)/TUNER PLL control data output.            |
| 8       | O-CLK/O-PLL.CLK          | O   | Function IC (M62445AFP)/TUNER PLL clock output.                   |
| 9       | O-MOTOR                  | O   | Tape deck motor ON/OFF output.                                    |
| 10      | CD ON                    | O   | CD control output.  |
| 11      | RESET                    | —   | Reset terminal.   |
| 12      | I-RE.VOL                 | —   | Volume JOG A/D input.   |
| 13      | I-RE.MULTI               | I   | Multi JOG A/D input.  |
| 14      | VSS1                     | —   | Connected to GND.   |
| 15      | CF1                      | —   | 9.43MHz oscillator circuit.                                       |
| 16      | CF2                      |     |   |
| 17      | VDD1                     | —   | Connected to VDD (Backup).  |
| 18      | I-HOLD                   | I   | Power-failure detection A/D input pin.                            |
| 19      | I-KEY-1                  | I   | KEY-1 A/D input.  |
| 20      | I-KEY-2                  | I   | KEY-2 A/D input.  |
| 21      | I-KEY-3                  | I   | KEY-3 A/D input.  |
| 22      | I-DISH                   | I   | CD turntable rotation input.                                      |
| 23      | I-CDSW                   | I   | CD switch detect A/D input.                                       |
| 24      | ITU-SIG/MS               | I   | RDS tuning signal/Deck music sensor input A/D input.              |
| 25      | I-SPEANA                 | I   | Spectrum analyzer level A/D input.                                |
| 26      | O-CLK.SHIFT              | O   | Microcomputer clock shift output.                                 |
| 27      | I-WRQ/RDS-CLK            | I   | CD control WRQ input/RDS clock input.                             |
| 28      | I-TIM-BASE               | I   | Tuner time base (8Hz) input.                                      |
| 29      | I-RMC                    | I   | System remote control input.                                      |
| 30-42   | G13-G1                   | O   | FL grid (G13-G1) output.  |
| 43-45   | P36-P34                  | O   | FL segment (P36-P34) output.                                      |
| 46      | VDD3                     | —   | Connected to VDD (for FL).  |
| 47-50   | P33-P30                  | O   | FL segment (P33-P30) output.                                      |
| 51      | VP                       | —   | Connected to -VFL.  |
| 52      | P29/O-SPEANA.A           | O   | FL segment (P29) output/Spectrum analyzer band switch output (A). |
| 53      | P28/O-SPEANA.B           | O   | FL segment (P28) output/Spectrum analyzer band switch output (B). |
| 54      | P27/O-SPEANA.C           | O   | FL segment (P27) output/Spectrum analyzer band switch output (C). |
| 55      | P26                      | O   | FL segment (P26) output.  |
| 56      | P25                      | O   | FL segment (P25) output.  |
| 57      | P24/DEMO                 | O/I | FL segment (P24) output/DEMO diode input (not used).              |

| Pin No. | Pin Name           | I/O | Description  |
|---------|--------------------|-----|--|
| 58      | P23/RDS            | O/I | FL segment (P23) output/RDS diode input (not used).                |
| 59      | P22/FM1            | O/I | FL segment (P22) output/FM1 diode input (not used).                |
| 60      | P21/SW             | O/I | FL segment (P21) output/SW diode input (not used).                 |
| 61      | P20/LW             | O/I | FL segment (P20) output/LW diode input (not used).                 |
| 62      | P19/AMST           | O/I | FL segment (P19) output/AM STEREO diode input.                     |
| 63      | P18/AM10K          | O/I | FL segment (P18) output/AM10K step initial diode input (not used). |
| 64      | P17/I- <u>CST2</u> | O/I | FL segment (P17) output/DEC2 cassette EXIST/NOT EXIST SW input.    |
| 65      | P16/I- <u>REB2</u> | O/I | FL segment (P16) output/DECK2 side-B record ABLE/DISABLE SW input. |
| 66      | P15/I- <u>CAM2</u> | O/I | FL segment (P15) output/DEC2 CAM SW ON/OFF input.                  |
| 67      | P14/I-AUTO1        | O/I | FL segment (P14) output/DECK1 AUTO stop detect input.              |
| 68      | P13/I-AUTO2        | O/I | FL segment (P13) output/DECK2 AUTO stop detect input.              |
| 69      | P12/I- <u>CAM1</u> | O/I | FL segment (P12) output/DECK1 CAM SW ON/OFF input.                 |
| 70      | P11/I- <u>CST1</u> | O/I | FL segment (P11) output/DECK1 cassette EXIST/NOT EXIST SW input.   |
| 71      | P10/I- <u>REA2</u> | O/I | FL segment (P10) output/DECK2 side-A record ABLE/DISABLE SW input. |
| 72      | VDD4               | —   | Connected to VDD (for FL).   |
| 73-81   | P9-P1              | O   | FL segment (P9-P1) output.   |
| 82      | O-KSCAN            | O   | Key-scan timing output.  |
| 83      | I-STEREO/I-DRF     | I   | TUNER STEREO detection input/CD control signal DRF input.          |
| 84      | I-IFC/I-SUBQ       | I   | TUNER TUNE, IF COUNT input/CD control signal SUBQ input.           |
| 85      | O-DISH.FWD         | O   | CD turntable forward-rotation output.                              |
| 86      | O-DISH.REV         | O   | CD turntable reverse-rotation output.                              |
| 87      | O-PLLCE            | O   | TUNER PLL chip enable output.                                      |
| 88      | O-CD.CE            | O   | CD control chip enable output.                                     |
| 89      | VSS2               | —   | Connected to GND.  |
| 90      | VDD2               | —   | Connected to VDD (Backup).   |
| 91      | O-CD.CLK           | O   | CD control clock output.   |
| 92      | O- <u>SOL1</u>     | O   | DECK1 plunger ON/OFF output.                                       |
| 93      | O- <u>SOL2</u>     | O   | DECK2 plunger ON/OFF output.                                       |
| 94      | O-SRST             | O   | CD-R system reset signal output.                                   |
| 95      | ARDY               | I   | CD-R control ready output.   |
| 96      | CDREQ              | I   | CD-R control CD-R microcomputer request output.                    |
| 97      | SREQ               | O   | CD-R control system-computer request output.                       |
| 98      | SOUT               | O   | CD-R data output.  |
| 99      | SIN                | I   | CD-R control data input.   |
| 100     | (O-MUTE)           | O   | Not connected.   |

| Pin No. | Pin Name  | I/O | Description  |
|---------|-----------|-----|--|
| 1       | IOCHRDY I | I/O | I/O channel ready.   |
| 2       | IO        | —   | Not used.  |
| 3       | ATA_CS0   | I   | ATAPI CS0.   |
| 4       | NCE       | I   | Dedicated configuration pin. For EPROM connection. (Connected to ground) |
| 5       | GND       | —   | Ground.  |
| 6       | VCCINT    | —   | Power supply.  |
| 7       | VCCIO     | —   |  |
| 8       | ATA_CS1   | I   | ATAPI CS1.   |
| 9       | IO        | —   | Not used.  |
| 10      | AD15      | I/O | Address bus.   |
| 11      | AD7       | I/O |  |
| 12      | AD14      | I/O |  |
| 13      | TDI       | —   | For JTAG connection. (Not used)  |
| 14      | AD6       | I/O | Address bus.   |
| 15      | AD13      | I/O |  |
| 16      | IO        | —   | Not used.  |
| 17      | CLKA      | I   | 33MHz clock.   |
| 18      | GND       | —   | Ground.  |
| 19      | VCCIO     | —   | Power supply.  |
| 20      | SYSRST    | I   | System reset.  |
| 21      | AD5       | I/O | Address bus.   |
| 22      | AD12      | I/O |  |
| 23      | AD4       | I/O |  |
| 24      | AD0       | I/O |  |
| 25      | AD8       | I/O |  |
| 26      | AD1       | I/O |  |
| 27      | TMS       | —   | For JTAG connection. (Not used)  |
| 28      | AD9       | I/O | Address bus.   |
| 29      | AD2       | I/O |  |
| 30      | GND       | —   | Ground.  |
| 31      | VCCINT    | —   | Power supply.  |
| 32      | VCCIO     | —   |  |
| 33      | MSEL      | I   | Dedicated configuration pin. For EPROM connection. (Connected to ground) |
| 34      | TCK       | —   | For JTAG connection. (Not used)  |
| 35      | AD10      | I/O | Address bus.   |
| 36      | IO        | —   | Not used.  |
| 37      | AD3       | I/O | Address bus.   |
| 38      | AD11      | I/O |  |
| 39      | IO        | —   | Not used.  |
| 40      | WE        | O   | Write enable.  |
| 41      | IO        | —   | Not used.  |

| Pin No. | Pin Name       | I/O | Description  |
|---------|----------------|-----|--|
| 42      | <u>LBS</u>     | O   | Low byte select.                                   |
| 43      | IO             | —   | Not used.  |
| 44      | <u>UBS</u>     | O   | Upper byte select.                                 |
| 45      | IO             | —   | Not used.  |
| 46      | <u>RAMSEL1</u> | O   | RAM select 1.                                      |
| 47      | IO             | —   | Not used.  |
| 48      | <u>RAMSEL0</u> | O   | RAM select 0.                                      |
| 49      | IO             | —   | Not used.  |
| 50-52   | A0-A2          | I   | Address bus.                                       |
| 53      | NCONFIG        | I   | Dedicated configuration. For EPROM connection.     |
| 54      | GND            | —   | Ground.  |
| 55      | VCCIO          | —   | Power supply.                                      |
| 56      | NSTATUS        | I   | Dedicated configuration pin. For EPROM connection. |
| 57      | IO             | —   | Not used.  |
| 58      | A19            | I   | Address bus.                                       |
| 59-64   | IO             | —   | Not used.  |
| 65      | ILRCK          | O   | Audio data in LR channel clock.                    |
| 66      | IO             | —   | Not used.  |
| 67      | OLRCK          | O   | Audio data out LR channel clock.                   |
| 68      | IO             | —   | Not used.  |
| 69      | SDATAI_DIG     | I   | Digital serial data in.                            |
| 70      | NCEO           | —   | Not used.  |
| 71      | SDATAO_DIG     | O   | Digital serial data out.                           |
| 72      | IO             | —   | Not used.  |
| 73      | TDO            | —   | For JTAG connection. (Not used)                    |
| 74, 75  | IO             | —   | Not used.  |
| 76      | GND            | —   | Ground.  |
| 77      | VCCINT         | —   | Power supply.                                      |
| 78      | VCCIO          | —   |  |
| 79      | ISCLK          | O   | Audio data in serial clock.                        |
| 80      | IO             | —   | Not used.  |
| 81      | OSCLK          | O   | Audio data out serial clock.                       |
| 82      | IO             | —   | Not used.  |
| 83      | SDATAO_ANA     | O   | Analog serial data out.                            |
| 84      | IO             | —   | Not used.  |
| 85      | SDATAI_ANA     | I   | Analog serial data in.                             |
| 86      | IO             | —   | Not used.  |
| 87      | OMCLK          | O   | Audio data out master clock.                       |
| 88      | IO             | —   | Not used.  |
| 89      | MCLKIN         | I   | Audio data in master clock.                        |
| 90      | GND            | —   | Ground.  |

| Pin No.  | Pin Name    | I/O | Description  |
|----------|-------------|-----|--|
| 91       | VCCIO       | —   | Power supply.                                      |
| 92       | <u>RES</u>  | I   | Hardware reset.                                    |
| 93       | IO          | —   |  |
| 94       | INIT_DONE   | —   |  |
| 95, 96   | IO          | —   |  |
| 97       | RDYNBSY     | —   | Not used.  |
| 98, 99   | IO          | —   |  |
| 100      | CLKUSR      | —   |  |
| 101      | IO          | —   |  |
| 102      | GND         | —   | Ground.  |
| 103      | VCCINT      | —   |  |
| 104      | VCCIO       | —   | Power supply.                                      |
| 105      | CONF_DONE   | I/O | Dedicated configuration pin. For EPROM connection. |
| 106, 107 | IO          | —   | Not used.  |
| 108      | TCBL        | I/O | Digital audio TCBL signal.                         |
| 109      | <u>FSEL</u> | I   | FPGA CS.   |
| 110      | IO          | —   |  |
| 111      | NCS         | —   | Not used.  |
| 112      | IO          | —   |  |
| 113      | <u>UCS</u>  | I   | Upper memory CS.                                   |
| 114      | IO          | —   | Not used.  |
| 115      | TCBLINT     | O   | TCBL interrupt.                                    |
| 116      | LRINT       | O   | LR clock interrupt.                                |
| 117      | NWS         | —   |  |
| 118      | IO          | —   | Not used.  |
| 119      | SRDY        | O   | Synchronous ready.                                 |
| 120      | NRS         | —   |  |
| 121, 122 | IO          | —   | Not used.  |
| 123      | DEV_OE      | —   |  |
| 124      | IO          | —   |  |
| 125      | DATA        | I   | Dedicated configuration pin. For EPROM connection. |
| 126      | GND         | —   | Ground.  |
| 127      | VCCIO       | —   | Power supply.                                      |
| 128      | DCLK        | I   | Dedicated configuration pin. For EPROM connection. |
| 129      | <u>WR</u>   | I   | Write signal.                                      |
| 130      | DEV_CLRN    | —   |  |
| 131      | IO          | —   | Not used.  |
| 132      | <u>S1</u>   | I   | Status 1.  |
| 133      | IO          | —   | Not used.  |
| 134      | <u>S2</u>   | I   | Status 2.  |
| 135      | IO          | —   | Not used.  |

| Pin No. | Pin Name              | I/O | Description           |
|---------|-----------------------|-----|-----------------------|
| 136     | ALE                   | I   | Address latch enable. |
| 137     | IO                    | —   | Not used.             |
| 138     | $\overline{BHE}$      | I   | Bus high enable.      |
| 139     | IO                    | —   | Not used.             |
| 140     | $\overline{RD}$       | I   | Read signal.          |
| 141     | IO                    | —   | Not used.             |
| 142     | $\overline{IDE\_ENA}$ | I   | IDE enable.           |
| 143     | IO                    | —   | Not used.             |
| 144     | IDE_DIR               | I   | IDE direction.        |

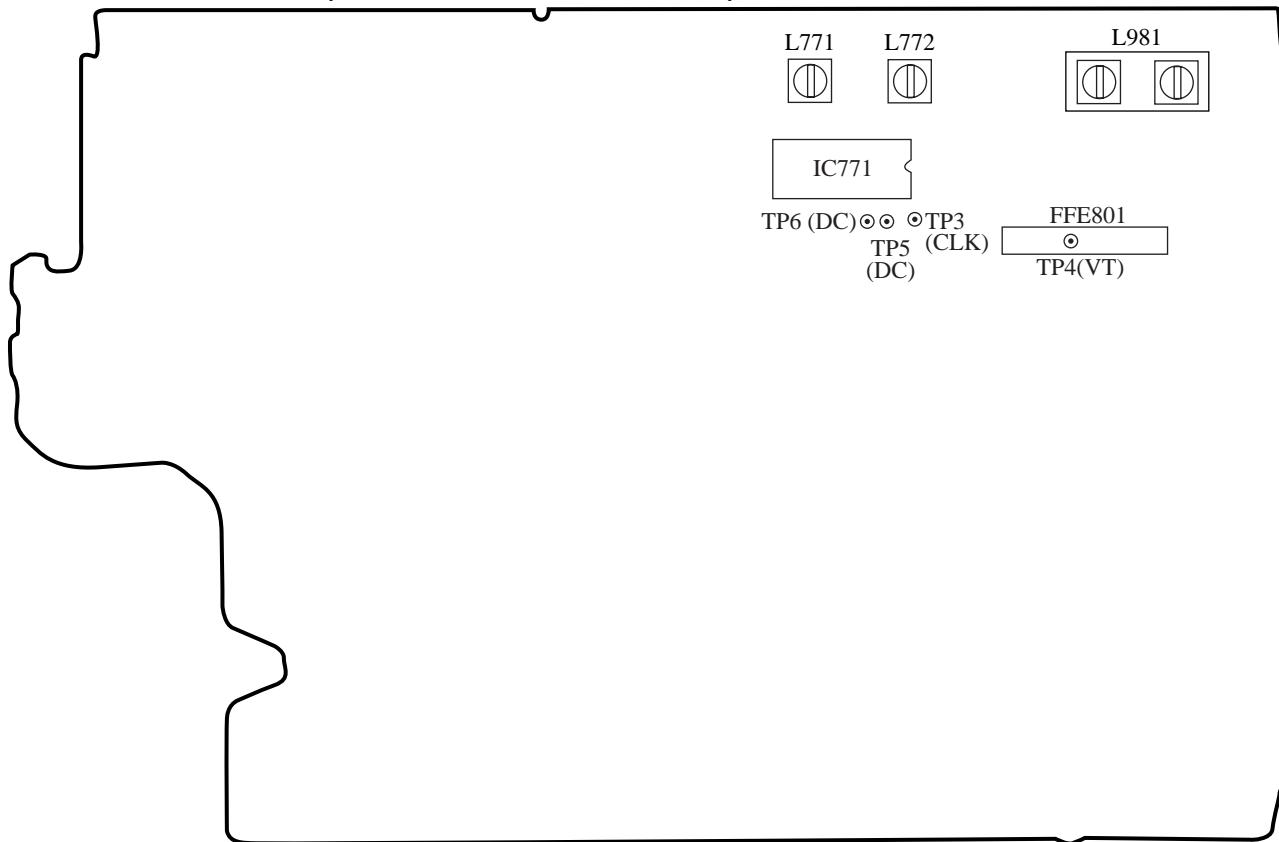
## IC, AM186EM-33K C/W

| Pin No. | Pin Name        | I/O | Description   |
|---------|-----------------|-----|---|
| 1       | SDEN1           | O   | E <sup>2</sup> PROM control. (Chip select)                    |
| 2       | SDEN0           | O   | Digital audio IC control. (Chip select)                       |
| 3       | SCLK            | O   | E <sup>2</sup> PROM/Digital audio IC control. (Clock)         |
| 4       | BHE/ADEN        | O   | CPU data bus. (Bus high enable)                               |
| 5       | WR              | O   | CPU data bus. (Write strobe)                                  |
| 6       | RD              | O   | CPU data bus. (Read strobe)                                   |
| 7       | ALE             | O   | CPU data bus. (Address latch enable)                          |
| 8       | ARDY            | —   | Not used. (Connected to ground through a resistor)            |
| 9-11    | S2-S0           | O   | Bus cycle status 2-0.   |
| 12      | GND             | —   | Digital ground.   |
| 13      | X1              | I   | CPU clock input. (33MHz)                                      |
| 14      | X2              | O   | CPU clock output. (33MHz)                                     |
| 15      | VCC             | —   | Digital +5V.  |
| 16      | CLKOUTA         | O   | CPU clock buffered output. (33MHz)                            |
| 17      | CLKOUTB         | O   | Not used.   |
| 18      | GND             | —   | Digital ground.   |
| 19-20   | A19-A18         | O   | CPU address bus. (A19-A18)                                    |
| 21      | VCC             | —   | Digital +5V.  |
| 22-37   | A17-A2          | O   | CPU address bus. (A17-A2)                                     |
| 38      | VCC             | —   | Digital +5V.  |
| 39-40   | A1-A0           | O   | CPU address bus. (A1-A0)                                      |
| 41      | GND             | —   | Digital ground.   |
| 42      | W <sub>HB</sub> | —   | Not used.   |
| 43      | W <sub>LB</sub> | —   |   |
| 44      | HLDA            | —   |   |
| 45      | HOLD            | —   | Not used. (Connected to ground)                               |
| 46      | SRDY            | O   | Synchronous ready.  |
| 47      | NMI             | —   | Not used. (Connected to ground through a resistor)            |
| 48      | ARDY            | O   | Asynchronous ready. (Connected to ground through a capacitor) |
| 49      | DATA_SER        | I/O | VFD driver control. (Data)                                    |
| 50      | CLK_SER         | O   | VFD driver control. (Clock)                                   |
| 51      | CS_VFD          | O   | 51VFD driver control. (Chip select)                           |
| 52      | DAINT           | I   | Digital audio IC interrupt request.                           |
| 53      | IRINT           | I   | Left/Right channel audio I/O interrupt request.               |
| 54      | IRIRQ           | I   | IR (Remocon) signal input.                                    |
| 55      | IDIRQ           | I   | CD drive interrupt request.                                   |
| 56      | TCBLINT         | —   | TCBL interrupt request.                                       |
| 57      | UCS             | O   | Upper memory chip select.                                     |
| 58      | LCS             | O   | Not used. (Connected to +5V through a resistor)               |
| 59      | CDREQ           | —   | CD interrupt request.   |
| 60      | DINSEL          | O   | Digital source select. (Optical/Coaxial)                      |

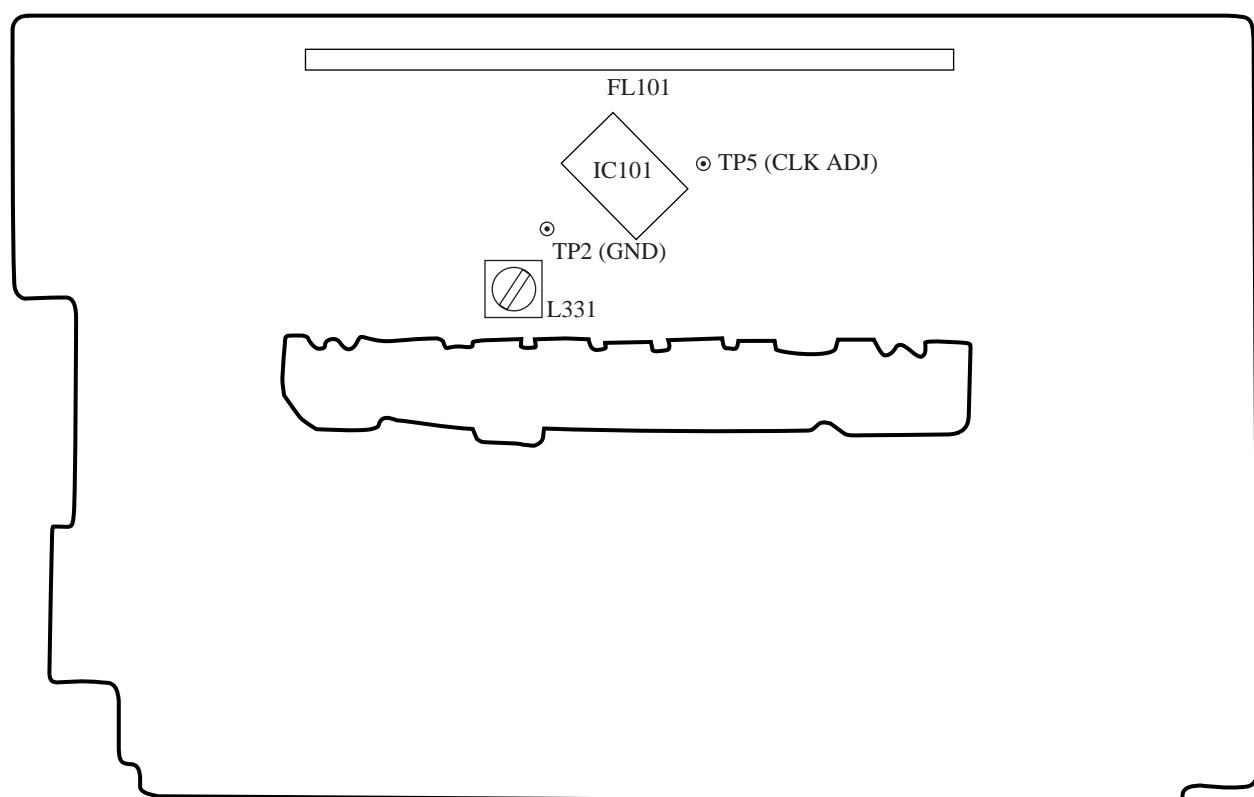
| Pin No. | Pin Name          | I/O | Description   |
|---------|-------------------|-----|---|
| 61      | VCC               | —   | Digital+5V.   |
| 62      | SREQ              | —   | Serial interrupt request.                           |
| 63      | <u>FSEL</u>       | O   | FPGA chip select.                                   |
| 64      | GND               | —   | Digital ground.                                     |
| 65      | ATA_CS1           | O   | ATAPII/FIDA2.                                       |
| 66      | ATA_CS0           | O   | ATAPII/Freset.                                      |
| 67      | VCC               | —   | Digital+5V.   |
| 68      | SDA               | O   | Audio codec control.(Data)                          |
| 69      | SCL               | O   | Audio codec control.(Clock)                         |
| 70      | GND               | —   | Digital ground.                                     |
| 71      | <u>RES</u>        | I   | CPU reset.  |
| 72      | TMRIN1            | —   | Programming mode selector. (Not used)               |
| 73      | <u>SYSRST</u>     | O   | Reset FPGA, audio codec and digital audio IC.       |
| 74      | <u>FLSTBY</u>     | O   | VFD power standby control.                          |
| 75      | TMRIN0            | —   | Programming mode selector.                          |
| 76      | AMUTE             | O   | Mute the analog output.                             |
| 77      | DRQO              | —   | Not used.   |
| 78      | AD0               | I/O | CPU address/Data bus. (AD0)                         |
| 79      | AD8               | I/O | CPU address/Data bus. (AD8)                         |
| 80      | AD1               | I/O | CPU address/Data bus. (AD1)                         |
| 81      | AD9               | I/O | CPU address/Data bus. (AD9)                         |
| 82      | AD2               | I/O | CPU address/Data bus. (AD2)                         |
| 83      | AD10              | I/O | CPU address/Data bus. (AD10)                        |
| 84      | AD3               | I/O | CPU address/Data bus. (AD3)                         |
| 85      | AD11              | I/O | CPU address/Data bus. (AD11)                        |
| 86      | AD4               | I/O | CPU address/Data bus. (AD4)                         |
| 87      | AD12              | I/O | CPU address/Data bus. (AD12)                        |
| 88      | AD5               | I/O | CPU address/Data bus. (AD5)                         |
| 89      | GND               | —   | Digital ground.                                     |
| 90      | AD13              | I/O | CPU address/Databus. (AD13)                         |
| 91      | AD6               | I/O | CPU address/Databus. (AD6)                          |
| 92      | VCC               | —   | Digital+5V.   |
| 93      | AD14              | I/O | CPU address/Databus. (AD14)                         |
| 94      | AD7               | I/O | CPU address/Databus. (AD7)                          |
| 95      | AD15              | I/O | CPU address/Databus. (AD15)                         |
| 96      | <u>S6/CLKDIV2</u> | —   | Not used.   |
| 97      | UZI               | —   |   |
| 98      | SIN               | —   | RS232CI/Fdataline. (Send)                           |
| 99      | SOUT              | —   | RS232CI/Fdataline. (Receive)                        |
| 100     | SDATA             | I/O | E <sup>2</sup> PROM/Digitalaudio IC control. (Data) |

## ELECTRICAL ADJUSTMENT

### MAIN C.B (TUNER SECTION)



### FRONT C.B



## < TUNER SECTION >

### 1. Clock Frequency Check

Settings: • Test point: TP3 (CLK)

Method: Set to AM 1710kHz and check that the test point is 2160kHz  $\pm 45$ Hz.

### 2. AM VT Check

Settings: • Test point: TP4 (VT)

Method: Set to AM 1710kHz and check that the test point is less than 8.5V. Then set to AM 530kHz and check that the test point becomes more than 0.6V.

### 3. AM Tracking Adjustment

Settings: • Test point: TP8 (Lch), TP9 (Rch)

• Adjustment location: L981 (1/3)

Method: Set to AM 1000kHz and adjust L981 (1/3) so that the test point becomes maximum.

### 4. AM IF Adjustment

Settings: • Test point: TP8 (Lch), TP9 (Rch)

• Adjustment location

L772 ..... 450MHz

### 5. FM VT Check

Settings: • Test point: TP4 (VT)

Method: Set to AM 108.0MHz and check that the test point is less than 8.0V. Then set to FM 87.5MHz and check that the test point is more than 0.5V.

### 6. FM Tracking Adjustment

Settings: • Test point: TP8 (Lch), TP9 (Rch)

Method: Set to FM 98.0MHz and check that the test point is less than 9dB $\mu$ V.

### 7. DC Balance/Mono Distortion Adjustment

Settings: • Test point: TP5, TP6 (DC balance)

• Adjustment location: L771

• Input level: 60dB $\mu$ V

Method: Set to FM 98.0MHz and adjust L771 so that the voltage between TP5 and TP6 becomes 0V  $\pm 0.04$ V.

Next, check that the distortion is less than 1.3%.

### 8. Output Level Check

#### <AM>

Settings: • Test point: TP8 (Lch), TP9 (Rch)

Method: Set to AM 1000kHz and check that the test point is 130mV  $\pm 3$ dB.

#### <FM>

Settings: • Test point: TP8 (Lch), TP9 (Rch)

Method: Set to AM 98.0MHz and check that the test point is 520mV  $\pm 3$  dB.

### 9. FM Separation Check

Settings: • Test point: TP8 (Lch), TP9 (Rch)

• Input level: 60dB $\mu$ V

Method: Set to FM 98.0MHz and check that the test point is more than 25dB.

## < FRONT SECTION >

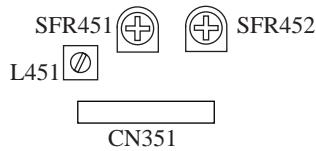
### 10. $\mu$ -com Clock Adjustment

Settings: • Test point: TP5 (CLK), TP2 (GND)

• Adjustment location: L331

Method: Connect a frequency counter across TP11 and TP12. Then adjust L331 so that the test point becomes 209.5Hz  $\pm 0.5$ Hz.

# NAIN C.B (DECK SECTION)



## < DECK SECTION >

### 1. Tape Speed Adjustment (DECK2)

Settings:

- Test tape: TTA-100
- Test point: TP6 (Lch), TP7 (Rch)
- Adjustment location: SFR1

Method: Playback the test tape and adjust SFR1 so that the test point becomes 3000Hz  $\pm$ 5Hz (FWD). and FWD SPEED  $\pm$ 45Hz (REV).

### 2. Head Azimuth Adjustment (DECK1, DECK2)

Settings:

- Test tape: TTA-330
- Test point: TP6 (Lch), TP7 (Rch)
- Adjustment location: Head azimuth adjustment screw

Method: Playback the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on each FWD and REV PLAY mode.

### 3. PB Frequency Response Check (DECK1, DECK2)

Settings:

- Test tape: TTA-330
- Test point: TP6 (Lch), TP7 (Rch)

Method: Playback the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is 0dB  $\pm$ 3dB.

### 4. PB Sensitivity Check (DECK1, DECK2)

Settings:

- Test tape: TTA-200
- Test point: TP6 (Lch), TP7 (Rch)

Method: Playback the 400Hz and check that the output level at TP6, TP7 is 280mV  $\pm$ 3dB.

### 5. REC/PB Frequency Response Adjustment (DECK2)

Settings:

- Test tape: TTA-602
- Test point: TP6 (Lch), TP7 (Rch)
- Input signal: 1kHz/10kHz (-20VU)
- Adjustment location: SFR451 (Lch) SFR452 (Rch)

Method: Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP6, TP7 becomes 20-21mV. Record and adjust SFRs so that the output level of the 10kHz signal becomes 0dB  $\pm$ 0.5dB with respect to that of the 1kHz signal.

### 6. REC/PB Sensitivity Check (DECK2)

Settings:

- Test tape: TTA-602
- Test point: TP6 (Lch), TP7 (Rch)
- Input signal: 1kHz (0VU)

Method: Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP6, TP7 becomes 200-210mV. Record and play back the 1kHz signal and check that the output is -2dB  $\pm$ 3dB.

## PRACTICAL SERVICE FIGURE

### < TUNER SECTION >

#### < FM SECTION >

|  |  |
|--|--|
| IHF Sensitivity:<br>(THD 3%)                           | Less than 14dB $\mu$ V<br>(at 87.5MHz)                         |
|  | Less than 13dB $\mu$ V<br>(at 98.0/108.0MHz)                   |
| S/N 50dB Quieting Sensitivity:<br>(Input 60dB $\mu$ V) | Less than 35dB $\mu$ V<br>(at 98.0MHz)                         |
| Signal to Noise Ratio:<br>(Input 60dB $\mu$ V)         | Mono: More than 68dB<br>Stereo: More than 62dB<br>(at 98.0MHz) |
| Distortion:<br>(Input 60dB $\mu$ V)                    | Mono: Less than 1.2%<br>Stereo: More than 2.0%<br>(at 98.0MHz) |
| Auto stop level:                                       | 25dB $\mu$ V $\pm$ 10dB (at 98.0MHz)                           |
| Stereo separation:                                     | More than 22dB (at 98.0MHz)                                    |
| Intermediate frequency:                                | 10.7MHz  |

### < AM SECTION >

|  |   |
|--|---|
| Sensitivity:<br>(S/N 20dB)                     | Less than 60dB $\mu$ V (at 600kHz)          |
|  | Less than 58dB $\mu$ V<br>(at 1000/1400kHz) |
| Signal to Noise Ratio:<br>(Input 74dB $\mu$ V) | More than 36dB<br>(at 1000kHz)              |
| Distortion:                                    | Less than 1.5% (at 1000kHz)                 |
| Auto stop level:                               | 52dB $\mu$ V +10/-15dB<br>(at 1000kHz)      |
| Intermediate frequency:                        | 450kHz                                      |

### < DECK SECTION >

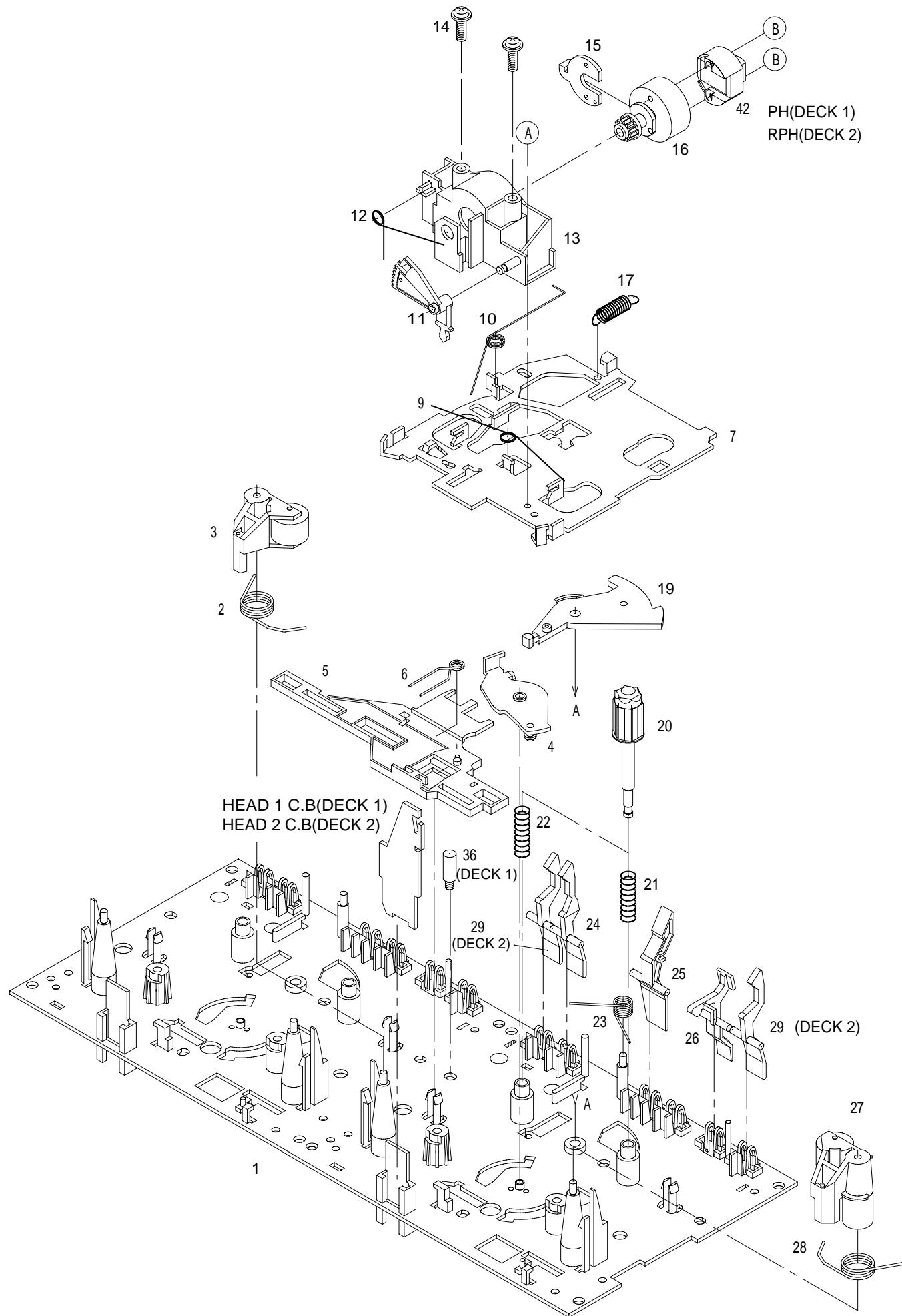
|                        |   |
|------------------------|---|
| Tape speed:            | 3000Hz $\pm$ 45Hz                                       |
| Wow & flutter:         | Less than 0.21% (W.R.M.S)                               |
| Take-up torque:        | 30-55g-cm (FWD, REV)                                    |
| FF&REW torque:         | 75-160g-cm  |
| Back tension:          | 2-7g-cm   |
| Pinch roller pressure: | 270-330g  |
| PB Output level:       | 220mV $\pm$ 4dB (SP OUT 2V)                             |
| REC/PB Output level:   | 160mV $\pm$ 3dB<br>(at 1kHz, 0VU, SP OUT 2V,<br>NORMAL) |
| Distortion(REC/PB):    | Less than 2.0%<br>(at 0VU, NORMAL)                      |
| Noise level (PB):      | Less than 1.0mV<br>(NORMAL, FILTER DIN<br>AUDIO)        |
| Noise level (REC/PB):  | Less than 1.0mV<br>(NORMAL, FILTER DIN<br>AUDIO)        |
| Distortion(PB):        | Less than 1.0mV<br>(NORMAL, FILTER DIN<br>AUDIO)        |
| Erasing ratio:         | More than 60dB (at 125Hz,<br>+10VU, NORMAL)             |
| Test tape:             | TTA-100<br>TTA-200<br>TTA-350<br>TTA-602(NORMAL)        |

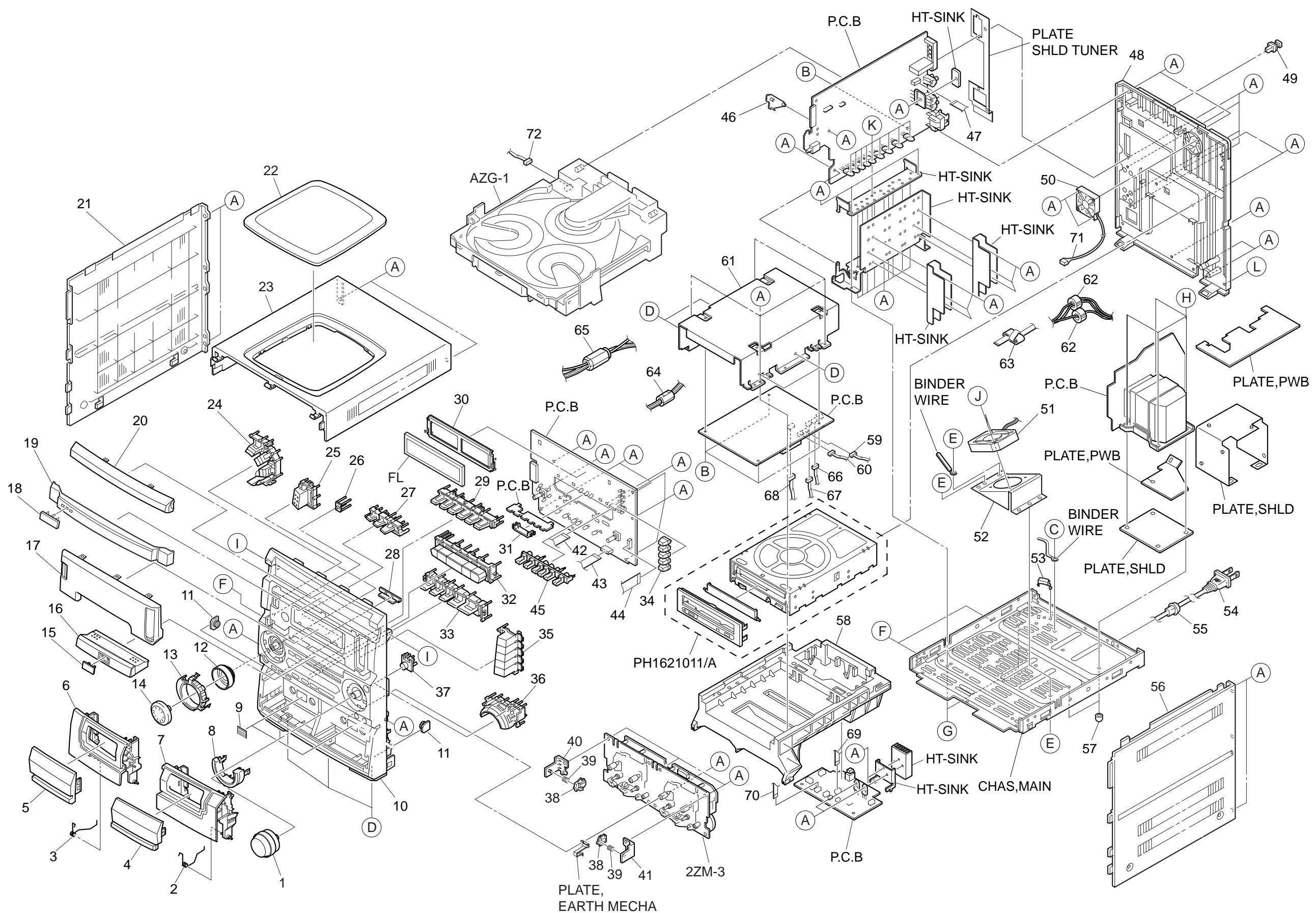
## TAPE MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。  
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION         | REF. NO | PART NO.       | KANRI NO. | DESCRIPTION          |
|---------|----------------|-----------|---------------------|---------|----------------|-----------|----------------------|
| 1       | 82-ZM3-301-610 |           | CHAS ASSY,M2        | 31      | 82-ZM1-255-310 |           | SPR-E,LVR DIR        |
| 2       | 82-ZM1-258-210 |           | SPR-T,PINCH L       | 32      | 82-ZM3-305-210 |           | GEAR,CAM M2          |
| 3       | 82-ZM1-341-210 |           | LVR ASSY,PINCH L2   | 33      | 82-ZM1-227-310 |           | LVR,TRIG             |
| 4       | 82-ZM1-333-210 |           | PLATE,LINK2         | 34      | 82-ZM3-306-110 |           | LVR,FR M2            |
| 5       | 82-ZM1-266-310 |           | LVR,DIR             | 35      | 82-ZM1-265-310 |           | SPR-E,TRIG           |
| 6       | 82-ZM1-214-010 |           | SPR-T,DIR           | 36      | 82-ZM3-339-110 |           | SHAFT,COUPLER N3     |
| 7       | 82-ZM1-206-910 |           | CHAS,HEAD           | 37      | 86-ZM1-206-010 |           | BELT,MAIN L          |
| 8       | 82-ZM3-335-310 |           | PULLEY,COUPLER M3   | 38      | 82-ZM1-322-010 |           | SPR-T,FR 60          |
| 9       | 82-ZM1-269-210 |           | SPR-T,BRG           | 39      | 82-ZM1-220-210 |           | GEAR, IDLER          |
| 10      | 82-ZM1-219-110 |           | SPR-T,LINK          | 40      | 82-ZM3-616-010 |           | RING MAGNET 4        |
| 11      | 82-ZM1-210-110 |           | GEAR,H T            | 41      | 82-ZM1-216-410 |           | GEAR,REEL            |
| 12      | 82-ZM1-213-010 |           | SPR-T,HEAD          | 42      | 87-A90-820-010 |           | HEAD,PH HADKH25 FPC  |
| 13      | 82-ZM1-207-910 |           | GUIDE,TAPE          | 42      | 87-A90-821-010 |           | HEAD,RPH HADKH56 FPC |
| 14      | 86-ZM4-206-010 |           | S-SCREW,AZIMUTH L   | 43      | 82-ZM1-225-210 |           | GEAR,FR              |
| 15      | 82-ZM1-314-110 |           | PLATE,HEAD          | 44      | 82-ZM1-226-010 |           | GEAR,REW             |
| 16      | 82-ZM1-208-310 |           | HLDL,HEAD           | 45      | 82-ZM3-333-310 |           | SLIP DISK ASSY 2     |
| 17      | 82-ZM1-218-010 |           | SPR-E,HB            | 46      | 82-ZM1-338-110 |           | BELT,FR 4            |
| 18      | 82-ZM3-342-010 |           | BELT,SBU MOT 3      | 47      | 82-ZM1-349-110 |           | FLY-WHL,R W          |
| 19      | 82-ZM1-222-210 |           | LVR,PLAY            | 47      | 82-ZM1-348-110 |           | FLY-WHL,L W          |
| 20      | 82-ZM1-217-410 |           | REEL TABLE          | 48      | 82-ZM3-338-310 |           | FLY-WHL,R3W          |
| 21      | 82-ZM1-244-510 |           | SPR-C,BT            | 49      | 82-ZM3-329-410 |           | BELT,SBU R2          |
| 22      | 82-ZM1-285-410 |           | SPR-C,BT L          | 50      | 82-ZM1-618-410 |           | SOL ASSY,27          |
| 23      | 82-ZM1-257-010 |           | SPR-T,CAS           | 51      | 87-045-347-010 |           | MOT,SHU2L 70         |
| 24      | 82-ZM1-241-310 |           | LVR,MC              | 52      | 82-ZM3-221-210 |           | PULLEY,MOT 2M        |
| 25      | 82-ZM1-242-010 |           | LVR,CAS             | A       | 85-ZM3-202-010 |           | S-SCREW,TG           |
| 26      | 82-ZM1-243-010 |           | LVR,STOP            | B       | 80-ZM6-207-010 |           | V+1.6-7              |
| 27      | 82-ZM1-344-010 |           | LVR ASSY,PINCH R2   | C       | 82-ZM3-318-110 |           | S-SCREW W,MOTOR M2   |
| 28      | 82-ZM1-259-210 |           | SPR-T,PINCH R       | D       | 87-B10-043-010 |           | W-P,0.99-4-0.25 SLT  |
| 29      | 82-ZM1-240-110 |           | LVR,REC(*)          | E       | 82-ZM3-334-010 |           | PW 2.16-6-0.4        |
| 30      | 80-ZM6-243-010 |           | SH 1.75-3.6-0.5 SLT |         |                |           |                      |

TAPE MECHANISM EXPLODED VIEW 1/2





# MECHANICAL PARTS LIST 1/1

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| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION         | REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                   |
|---------|----------------|-----------|---------------------|---------|----------------|-----------|-------------------------------|
| 1       | 8Z-NB8-020-110 |           | KNOB,RTRY VOL       | 43      | 88-915-161-110 |           | FF-CABLE, 15P 1.25            |
| 2       | 8Z-NF5-219-010 |           | SPR-T,EJECT 2 (SIN) | 44      | 88-913-271-110 |           | FF-CABLE, 13P 1.25            |
| 3       | 8Z-NF5-218-010 |           | SPR-T,EJECT 1 (SIN) | 45      | 8Z-NB8-210-210 |           | GUIDE,FUN                     |
| 4       | 8Z-DF8-022-010 |           | WINDOW,CASS 2       | 46      | 8Z-NB8-215-010 |           | HLDR,PWB M                    |
| 5       | 8Z-DF8-021-010 |           | WINDOW,CASS 1       | 47      | 8Z-DF8-640-010 |           | FF-CABLE, 12P 1.25 300MM      |
| 6       | 8Z-DF8-019-010 |           | BOX,CASS 1          | 48      | 8Z-DF8-012-010 |           | CABI,REAR S<D<S>              |
| 7       | 8Z-DF8-020-010 |           | BOX,CASS 2          | 48      | 8Z-DF8-011-010 |           | CABI,REAR USM<U<S>            |
| 8       | 8Z-NB8-036-210 |           | PANEL,VOL(*)        | 49      | 84-ZG1-245-210 |           | CAP,OPTICAL                   |
| 9       | 81-532-080-010 |           | LABEL, CASS. COMPT  | 50      | 8Z-CL1-663-010 |           | FAN,ME40D-12-200MM            |
| 10      | 8Z-DF8-025-010 |           | CABI,FR D<D<S>      | 51      | 87-A90-796-010 |           | FAN,F614R-12MC-15-300MM       |
| 10      | 8Z-DF8-004-010 |           | CABI,FR U<U<S>      | 52      | 8Z-NB8-216-010 |           | HLDR,FAN                      |
| 11      | 87-NF8-220-010 |           | DMPR,150            | 53      | 87-NF4-221-010 |           | HLDR,CABLE                    |
| 12      | 8Z-NB8-021-010 |           | REFLECTOR,JOG       | 54      | 87-050-098-010 |           | AC CODE ASSY,D<D<S>           |
| 13      | 8Z-NB8-035-110 |           | PANEL,JOG           | 54      | 87-A80-110-010 |           | AC CORD ASSY,U SPT-2W<U<S>    |
| 14      | 8Z-NB8-019-110 |           | KNOB,RTRY JOG       | 55      | 87-085-184-010 |           | BUSHING, AC CORD (D)<D<S>     |
| 15      | 8Z-DF8-014-010 |           | BADGE,CD-R 26       | 55      | 87-085-189-010 |           | BUSHING, CORD (U)<U<S>        |
| 16      | 8Z-DF8-005-010 |           | PANEL,TRAY CD-R     | 56      | 8Z-NB8-012-010 |           | PANEL,RIGHT V-2               |
| 17      | 8Z-DF8-007-010 |           | WINDOW,DISP U       | 57      | 8Z-NB8-240-010 |           | COVER, PL                     |
| 18      | 87-CE3-023-010 |           | BADGE,AIWA 30N SILV | 58      | 8Z-DF8-201-010 |           | HLDR,CD-R                     |
| 19      | 8Z-DF8-006-010 |           | PANEL,TRAY          | 59      | 8Z-DF8-675-010 |           | CONN ASSY,2P SHIELD230MM      |
| 20      | 8Z-DF8-023-010 |           | PANEL,CD            | 60      | 8Z-DF8-673-010 |           | CONN ASSY,10P CDC             |
| 21      | 8Z-NB8-011-210 |           | PANEL,LEFT V-2      | 61      | 8Z-DF8-203-110 |           | CASE,SHLD CD-R                |
| 22      | 86-NF6-007-010 |           | WINDOW, TOP<D<S>    | 62      | 87-A90-457-010 |           | F-BEAD,15-25-15 E251          |
| 22      | 86-NF6-101-110 |           | WINDOW, TOP UL<U<S> | 63      | 87-A90-762-010 |           | F-BEAD, 3407MFT               |
| 23      | 8Z-NB8-014-010 |           | PANEL, TOP V-2 R    | 64      | 80-XM5-607-010 |           | CORE,Z CAT 1518-0730          |
| 24      | 8Z-DF8-008-010 |           | KEY,FINALIZE<U<S>   | 65      | 89-HD1-646-010 |           | CORE,ZCAT2035-0930            |
| 24      | 8Z-DF8-018-010 |           | KEY,FINALIZE D<D<S> | 66      | 8Z-DF8-670-010 |           | CONN ASSY,4P                  |
| 25      | 8Z-NB8-015-010 |           | KEY,POWER           | 67      | 8Z-DF8-671-010 |           | CONN ASSY,6P                  |
| 26      | 8Z-NB8-033-010 |           | REFLECTOR,ECO       | 68      | 8Z-DF8-677-010 |           | CONN ASSY,6P PROGRAM          |
| 27      | 8Z-NB8-034-010 |           | KEY,RDS             | 69      | 88-906-171-110 |           | FF-CABLE,6P 1.25              |
| 28      | 8Z-DF8-015-010 |           | REFLECTOR,CD-R      | 70      | 8Z-DF8-672-010 |           | CONN ASSY,10P CDP             |
| 29      | 8Z-DF8-010-010 |           | KEY,REC             | 71      | 8Z-DF8-674-010 |           | CONN ASSY,3P FAN              |
| 30      | 87-NF5-203-110 |           | GUIDE,FL(*)         | 72      | 8Z-DF8-676-010 |           | CONN ASSY,2P SHIELD260MM<D<S> |
| 31      | 8Z-DF8-202-010 |           | GUIDE,CD-R          | A       | 87-067-703-010 |           | TAPPING SCREW, BVT2+3-10      |
| 32      | 8Z-NB8-028-010 |           | KEY,ASSY OPE        | B       | 87-NF4-224-010 |           | S-SCREW,IT3B+3-8 CU           |
| 33      | 8Z-NB8-027-110 |           | KEY,CD              | C       | 87-067-585-010 |           | TAPPING SCREW, BVT2+4-6       |
| 34      | 8Z-NB8-211-010 |           | GUIDE,OPE           | D       | 87-067-688-010 |           | BVT2+3-6                      |
| 35      | 8Z-DF8-016-010 |           | KEY,ASSY FUN        | E       | 87-067-584-010 |           | TAPPING SCREW, BVT2+3-6       |
| 36      | 8Z-NB8-026-210 |           | KEY,DISP(*)         | F       | 87-723-096-410 |           | QT2+3-10W/O SLOT BL           |
| 37      | 8Z-DF8-009-010 |           | KEY,CD-R O/C        | G       | 87-067-579-010 |           | TAPPING SCREW, BVT2+3-8       |
| 38      | 82-NF5-229-010 |           | PLATE,LOCK          | H       | 87-078-191-010 |           | S-SCREW,IT4+4-10              |
| 39      | 86-NF9-224-010 |           | SPR-C,LOCK          | I       | 87-721-097-410 |           | QT2+3-12 GLD                  |
| 40      | 87-NF4-216-010 |           | HLDR,LOCK 1         | J       | 87-B10-184-010 |           | BVT2+3-20 W/O SLOT            |
| 41      | 87-NF4-217-110 |           | HLDR,LOCK 2         | K       | 87-067-001-010 |           | BVWWST2+3-12 W/O SL           |
| 42      | 88-909-501-110 |           | FF-CABLE, 9P 1.25   | L       | 85-NF7-599-010 |           | PVC W 3.2-8-0.3               |

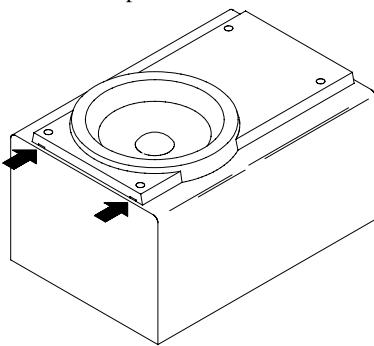
## COLOR NAME TABLE

| Basic color symbol | Color             | Basic color symbol | Color              | Basic color symbol | Color              |
|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| B                  | Black             | C                  | Cream              | D                  | Orange             |
| G                  | Green             | H                  | Gray               | L                  | Blue               |
| LT                 | Transparent Blue  | N                  | Gold               | P                  | Pink               |
| R                  | Red               | S                  | Silver             | ST                 | Titan Silver       |
| T                  | Brown             | V                  | Violet             | W                  | White              |
| WT                 | Transparent White | Y                  | Yellow             | YT                 | Transparent Yellow |
| LM                 | Metallic Blue     | LL                 | Light Blue         | GT                 | Transparent Green  |
| LD                 | Dark Blue         | DT                 | Transparent Orange |                    |                    |

# SPEAKER DISASSEMBLY INSTRUCTIONS

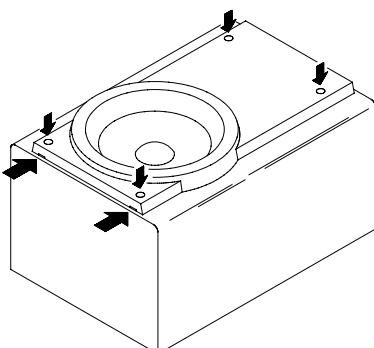
## Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



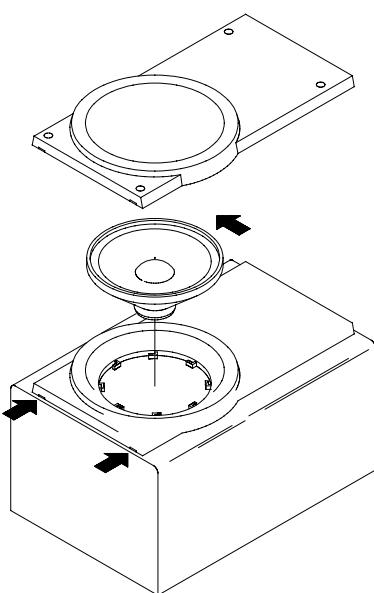
## Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hold where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

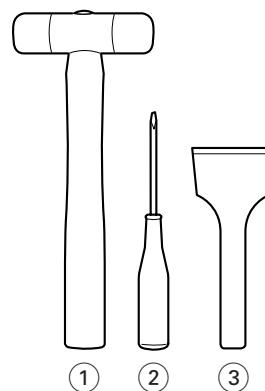


## Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



## Type.4



## TOOLS

- ① Plastic head hammer
- ② (⊖) flat head screwdriver
- ③ Cut chisel

## How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.
2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.
3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

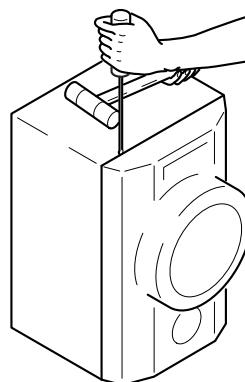


Fig-1

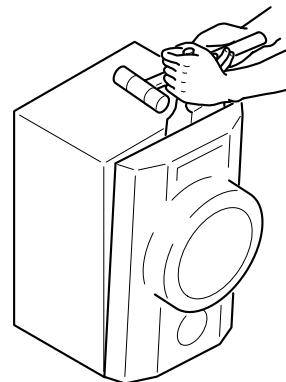


Fig-2

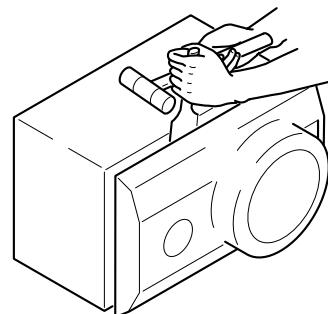


Fig-3

## How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

## SPEAKER PARTS LIST 1/1

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If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                 |
|---------|----------------|-----------|-----------------------------|
| 1       | 88-NS5-610-010 |           | CORD,SPKR                   |
| 2       | 88-NS5-611-010 |           | CORD,SPKR B/L               |
| 3       | 8Z-NSY-015-010 |           | PANEL,FR N2                 |
| 4       | 8Z-NSY-004-010 |           | PROTECTOR, TW               |
| 5       | 8Z-NSY-608-010 |           | SPKR, CERAMIC ASSY (SWNH33) |
| 6       | 86-NS5-012-010 |           | BADGE, AIWA 35              |
| 7       | 8Z-NSY-016-010 |           | GRILLE, FRAME ASSY 2        |
| 8       | 8Z-NSY-602-010 |           | SPKR, W 160                 |
| 9       | 8Z-NSY-604-010 |           | SPKR, M 100                 |

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**AIWA CO.,LTD.** 2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110-8710, JAPAN TEL:03 (3827) 3111